ISSN 0029-554x

NUCLEAR INSTRUMENTS & METHODS

A JOURNAL ON ACCELERATORS, INSTRUMENTATION
AND TECHNIQUES IN NUCLEAR PHYSICS AND RELATED FIELDS

EDITOR: K. SIEGBAHN-UPPSALA

MASTER INDEX

VOLUMES 141-150

LAST NUMBER OF VOLUME 150

NORTH-HOLLAND PUBLISHING COMPANY — AMSTERDAM

PERIODICAL
QC
786
N883
U.H. LIBRARY

NUCLEAR INSTRUMENTS AND METHODS

A journal on accelerators, instrumentation and techniques in nuclear physics and related fields

EDITOR: K. SIEGBAHN, UPPSALA
ASSOCIATE EDITOR: C. NORDLING, UPPSALA

EDITORIAL BOARD:

J. B. ADAMS (CERN)
H. L. ANDERSON (Chicago)
M. Q. BARTON (Upton)
I. BERGSTRÖM (Stockholm)
N. N. BOGOLUBOV (Moscow)
S. BRANDT (Siegen)
H. BRINKMAN (Groningen)
D. A. BROMLEY (New Haven)
P. CHRISTENSEN (Roskilde)
A. CITRON (Karlsruhe)
E. H. COOKE-YARBOROUGH (Harwell)
J. W.T. DABBS (Oak Ridge)
M. DAVIER (Orsay)
B. S. DŻELEPOW (Leningrad)
G. T. EWAN (Kingston)
F. S. GOULDING (Berkeley)
O. HAXEL (Karlsruhe)
R. G. HELMER (Idaho Falls)
R. KLAPISCH (Orsay)
E. E. KOCH (Hamburg)
M. S. KOSODAEV (Moscow)
F. KRIENEN (CERN)
H. LANGEVIN-JOLIOT (Orsay)
G. E. LEE-WHITING (Chalk River)
H. MAIER-LEIBNITZ (Bonn)
M. G. MESCHERYAKOV (Moscow)
W. PAUL (Bonn)
J. R. RICHARDSON (Vancouver)
M. SAKAI (Tokyo)
C. SCHAERF (Roma)
A. M. SESSLER (Berkeley)
N. G. SJÖSTRAND (Göteborg)
B. V. SREEKANTAN (Bombay)
S.C.C. TING (Lexington, Mass.)
R. VAN LIESHOUT (Amsterdam)
J. WALKER (Birmingham)

INFORMATION TO AUTHORS

Contributions, written in English, French or German, and books for review may be sent either directly to the Editor, Professor K. Siegbahn, Institute of Physics, University of Uppsala, Sweden, or to one of the members of the Editorial Board. *Contributions and figures to be sent in duplicate.* Short contributions of *less than 1500 words* and not subdivided into sections, may be published as Letters to the Editor, in a shorter time than regular articles as the proofs will normally be corrected by the publisher.
Review articles, written in English, may be sent directly to the Editor.

Before mailing the manuscript, please check the following points:
1. Is there an *abstract* in English? (Letters to the Editor should have an abstract of *less than 30 words.*)
2. Have you given the name(s) of the author(s) on the manuscript and the name and address of the institute where the research work was done? (Proofs will be sent by the publisher to this address.) For the sake of correct indexing in abstracts journals etc. it is recommended that authors use full forenames rather than just initials.
3. Is the manuscript clearly typewritten, with ample space between the lines, is the subdivision logical, and are the text and figures *ready for printing*? (The costs for making corrections are very high when proofs have been made of a manuscript. It will therefore be assumed that the submitted manuscript is in final form. Authors will be charged for corrections against manuscript if the expense exceeds a certain amount.)
4. Have you enclosed inked original drawings, or (*preferably not*) glossy prints of every figure, ready for direct reproduction? Are all details, especially the lettering and numbering, sufficiently large to show up clearly in the reduced size of the printed figure? (The consequence of making the slightest changes in the figures of the galley proof is that in most cases *new blocks* must be made.) Your figure material will be returned to you after publication of the article.
5. Is there a *separate* list of the figure captions? (All figures should have captions.)
6. Is the list of references complete, in accordance with the convention of the journal and are all author's initials given in all references?
7. Is a copy of the manuscript and copies of its figures attached to the original manuscript?

INFORMATION FOR ADVERTISERS

Advertising orders and enquiries can be sent to the Advertising Manager, North-Holland Publishing Co., Journal Division, P.O. Box 211, Amsterdam, The Netherlands.

U.S.A. Mrs. Leni Ellinger, 3133 Connecticut Avenue, N.W., Suite 712, Washington, D.C. 20008.

France. Régie Publicité Industrielle, 36, rue du Fer-à-Moulin, Paris 5e, Tél. 707-53-39.

United Kingdom. T. G. Scott & Son Ltd., 30-32 Southampton Street, London WC2E 7HR.

Nuclear Instruments and Methods is published semi-monthly. The subscription price of a volume is Hfl. 285.00 ($139.00), postage not included. The Dutch Guilder price is definitive; the currency equivalent is for your guidance only. For 1979 10 volumes have been announced.

Subscriptions should be sent to the publishers, North-Holland Publishing Company, P.O. Box 211, Amsterdam or to any subscription-agent.
Claims for missing numbers should be made within three months, following the date of publication. The publishers expect to supply missing numbers free only when losses have been sustained in transit and when the reserve stock will permit.

© North-Holland Publishing Company, 1979. All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Copyright owner.

Submission to this journal of a paper entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Published semi-monthly

Printed in Belgium

NUCLEAR INSTRUMENTS & METHODS

A JOURNAL ON ACCELERATORS, INSTRUMENTATION
AND TECHNIQUES IN NUCLEAR PHYSICS AND RELATED FIELDS

EDITOR: K. SIEGBAHN-UPPSALA

VOLUMES 141–150

MASTER INDEX

NORTH-HOLLAND PUBLISHING COMPANY — AMSTERDAM

Elsevier's Dictionary of Measurement and Control

compiled and arranged on an English alphabetical basis by W. E. CLASON, *Geldrop, The Netherlands.*

7795 entries in English/American, French, Spanish, Italian, Dutch, German

To date, there has been no comprehensive multilingual dictionary to cover the large fields of measurement and control. The purpose of this dictionary is to fill the existing gap.

In compiling a multilingual dictionary on measurement and control - two areas closely related to each other - the compiler must take into account automatic and non-automatic control, whereby control as such and the difference between the various modes of control play a role; while, in measurement, the variables to be measured, the measuring apparatus and the measuring methods must be considered. Drawing on the extensive literature of the fields, the author has dealt with all of these aspects of measurement and control.

As with all of the Elsevier Multilingual Dictionaries, the system of numerically keyed alphabetical indexes is used in this dictionary. This successful and popular method allows the user to begin with any one of the languages, and then quickly and easily find its equivalents in all of the other languages.

This dictionary will be of particular interest to engineers and to firms involved in measurement and control.

Aug. 1977 x + 886 pages US $120.50/Dfl. 295.00
ISBN 0-444-41582-3

ELSEVIER

P.O. Box 211, Amsterdam
The Netherlands
52 Vanderbilt Ave
New York, N.Y. 10017

The Dutch guilder price is definitive. US $ prices are subject to exchange rate fluctuations.

7069

Elsevier's Dictionary of Nuclear Science and Technology

Second revised edition

by **W.E. CLASON,** formerly of N.V. Philips' Gloeilampenfabrieken, Eindhoven, The Netherlands.

7806 entries in English/American (with definitions), French, Spanish, Italian, Dutch, German.

1970. 787 pages. US $ 39.75/Dfl. 95.00. ISBN 0-444-40810-X

This second edition of the Dictionary of Nuclear Science and Technology has been revised and expanded with a view to enable nuclear scientists and engineers to keep in touch with the most recent developments in the field of nuclear science and technology. Since the available literature is published in a number of languages, this reference work will greatly contribute to a better understanding of the subject. Presented in this volume is the whole terminology, in six languages, which the user will require to consult the literature.

ELSEVIER'S DICTIONARY OF GENERAL PHYSICS
by **W.E. CLASON**
3409 entries in English/American (with definitions), French, Spanish, Italian, Dutch, German.
1962. 867 pages. US $ 39.75/Dfl. 95.00.
ISBN 0-444-40122-9

DICTIONARY OF PURE AND APPLIED PHYSICS
compiled by **LOUIS DE VRIES,** Professor, Iowa State University, Iowa, U.S.A., and **W.E. CLASON,** formerly of N.V. Philips' Gloeilampenfabrieken, Eindhoven, The Netherlands.
Volume 1: German-English: 31,050 entries
1963. 375 pages. US $ 20.95/Dfl. 50.00.
ISBN 0-444-40168-7
Volume 2: English-German: 30,000 entries
1964. 349 pages. US $ 20.95/Dfl. 50.00.
ISBN 0-444-40169-5.
Price per set: US $ 35.50/Dfl. 85.00.

NUCLEAR PHYSICS AND ATOMIC ENERGY
Terms of Nuclear Physics and Nuclear Technology
by **G.J. BÉNÉ,** Universities of Geneva, Switzerland and Grenoble, France.
2117 entries in English, French, German, Russian.
1960. 222 pages. US $ 14.75/Dfl. 35.00.
ISBN 0-444-40037-0

CONCISE ENCYCLOPAEDIA OF NUCLEAR ENERGY
edited by **D.E. BARNES** et al., Reading, Great Britain.
1962. 896 pages, 787 diagrams, 8 plates, 2834 entries. US $ 39.75/Dfl. 95.00.
ISBN 0-444-99981-7.

Elsevier Scientific Publishing Company
P.O. Box 211, Amsterdam, The Netherlands
Distributed in the U.S.A. and Canada by:
American Elsevier Publishing Company, Inc.,
52, Vanderbilt Ave., New York, N.Y. 10017

AUTHOR INDEX

ABBONDANNO, U., A. BOITI and F. DEMANINS, The application of a non-iterative method for fitting a Gaussian to peaks from Ge(Li) and Si detectors **142** (1977) 605

ABBONDANNO, U., A. BOITI, F. DEMANINS and M. R. MALISAN, Automatical analysis of gamma-ray and charged-particle complex spectra from solid state detectors **148** (1978) 577

ABD EL-RAZEK, M. M. and J. H. THORNGATE, Studies of a tetralin-based scintillator with possible applications in neutron spectrometry **141** (1977) 477

ABD EL-RAZEK, M. M., *see* THORNGATE **144** (1977) 209

ABMAYR, W., P. GAIS, H. G. PARETZKE, K. RODENACKER and G. SCHWARZKOPF, Realtime automatic evaluation of solid state nuclear track detectors with an on-line TV-device **147** (1977) 79

ABOOKAZEMI, M. E., *see* BISHOP **148** (1978) 553

ADAMS, F., *see* VAN ESPEN **142** (1977) 243

ADAMS, F., *see* VAN ESPEN **145** (1977) 579

ADAMS, W. R., *see* VAN RINSVELT **142** (1977) 171

ADAMS, W. R., *see* GUFFEY **149** (1978) 489

ADANI, A., F. FOSSATI and T. PINELLI, Charge distribution in the fragments of spontaneous fission of ^{252}Cf. . . . **146** (1977) 332

ADELMANN, P. J., *see* HELBIG **149** (1978) 581

ADLER, D., B. FUCHS and K. O. THIELHEIM, Numerical integration of electromagnetic cascade equations, discussion of results for air, copper, iron and lead *(Letter to the Editor)* **146** (1977) 601

AFANAS'EV, V. P., V. A. OBUKHOV and V. I. RAIKO, Thermoionization efficiency in the ion source cavity **145** (1977) 533

AGAMY, S. A. and J. J. ROBINSON, Surface Analysis Using Medium Energy Ion and Neutral Scattering **149** (1978) 595

AGARD, M., *see* TSAN UNG CHAN **146** (1977) 314

AGARWAL, S., *see* POUTHAS **145** (1977) 445

AGRAWAL, M. K. and D. K. SOOD, On the Determination of the Nature of Defect Clusters in Irradiated Metals by Rutherford Backscattering **149** (1978) 425

AGRINIER, B., *see* PARLIER **148** (1978) 483

AHLBERG, M. S., Enhancement in PIXE analysis **142** (1977) 61

AHLBERG, M. S., Comparison of yield versus depth for particle induced and photon induced X-ray emission analysis *(Letter to the Editor)* **146** (1977) 465

AHLBERG, M. S., A. C. D. LESLIE and J. W. WINCHESTER, The Chemical State of Particulate Sulfur in Ambient Aerosols Determined by PIXE Analysis **149** (1978) 451

AHLEN, S. P., B. G. CARTWRIGHT AND G. TARLÉ, Technique for painting light integration boxes **143** (1977) 513

AHLEN, S. P., B. G. CARTWRIGHT and G. TARLÉ, Return to unsaturated response of polymeric scintillators excited by relativistic heavy ions **147** (1977) 321

AHMED, M., A comparative study of n–γ discrimination properties of scintillators NE 213, C_6H_6, C_6D_6 and stilbene . **143** (1977) 255

AHRENS, H., *see* SILVA **147** (1977) 371

AJITANAND, N. N., A semi-empirical expression for specific luminescence in plastic scintillators **143** (1977) 345

AKBER, R. A., *see* KHAN **147** (1977) 125

AKIMOV, V., R. BAZER-BACHI, E. BONFAND, A. GALPER, M. GORISSE, M. GROS, L. KALINKIN, V. KIRILLOV-UGRYUMOV, V. D. KOZLOV, J. M. LAVIGNE, J. P. LERAY, B. LUCHKOV, B. MOUGIN, V. E. NESTEROV, Y. OZEROV, J. A. PAUL, A. POPOV, V. L. PROKHINE, A. RAVIART, G. SERRA, G. V. VESELOVA and S. VORONOV, An accelerator evaluation of the performance of the Soviet-French wide-gap spark chamber for gamma-ray astronomy **147** (1977) 329

AKOPOVA, A. B., N. V. MAGRADZE, L. V. MELKUMYAN and Y. P. PROKHORENKO, The separation of heavy ion tracks in nuclear emulsions by means of the pulsed electric field **147** (1977) 53

AKSELSSON, K. R., *see* ORSINI **142** (1977) 91

AKSELSSON, K. R., *see* DESAEDELEER **142** (1977) 97

AKSELSSON, K. R., *see* KAUFMANN **142** (1977) 251

ALAGA, G., Quasi-rotational states in vibrational nuclei **146** (1977) 171

ALBATS, P., *see* ZYCH **144** (1977) 183

ALEGRIA FEIO, M., *see* ALVES **144** (1977) 605

ALESSI, J. G., W. LAUGHLIN, J. X. SALADIN, W. L. MCNAMEE and S. D. GAZARIK, A negative ion sputter source in a Van de Graaff terminal **147** (1977) 305

ALEXANDER, T. K., *see* LONE **143** (1977) 331

ALEXANDRE, C., *see* FOWLER **147** (1977) 195

ALEXANIAN, A. S., T. L. ASATIANI, A. O. GASPARIAN, L. A. JIROVA, L. A. GENINA, V. A. IVANOV, G. K. MEGRABIAN, G. G. MKRTCHIAN, R. N. PIKHTELEV, M. I. DAYON, A. D. KAMENSKI, F. F. KAYUMOV, V. A. KRAMARENKO, G. L. MELKUMOV and M. N. KHACHATURIAN, Arrangement for study of π^0-photoproduction on ^4He nuclei . . . **148** (1978) 251

ALFASSI, Z. B. and R. NOTHMAN, Off-center X-ray detection efficiencies of Si(Li) detectors **143** (1977) 57

AL-HADDAD, I. K., *see* KHADDURI **147** (1977) 153
ALIBRAN, P., *see* FETT **144** (1977) 109
ALLRED, D. D., *see* CLARK **149** (1978) 9
ALLRED, D. D., *see* ZIEGLER **149** (1978) 19
ALONSO, E. V., *see* AUCIELLO **147** (1977) 349
ALTON, G. D., *see* MOAK **150** (1978) 529
ALTSTETTER, C. J., R. BEHRISCH, J. BØTTIGER, F. POHL and B. M. U. SCHERZER, Depth Profiling of Deuterium Implanted into Stainless Steel at Room Temperature **149** (1978) 59
ALVAR, K. R., H. H. BARSCHALL, R. R. BORCHERS, S. M. GRIMES and R. C. HAIGHT, Detection system for charged particles produced by neutrons **148** (1978) 303
ALVES, M. A. F., M. SALETE, S. C. P. LEITE, M. ALEGRIA FEIO and A. J. P. L. POLICARPO, Xenon–krypton mixtures for the gas proportional scintillation counter (*Letter to the Editor*) **144** (1977) 605
AMARAL, L. Q., *see* PIMENTEL **148** (1978) 199
AMBROSE, C. L., K. D. EVANS, E. MATHIESON and S. B. WHITEHOUSE, Noise measurements for voltage sensitive amplifier **145** (1977) 601
AMBURGEY, J. D., *see* GABRIEL **142** (1977) 361
AMBURGEY, J. D., *see* JENSEN **143** (1977) 429
AMENDOLIA, S. R., *see* FUCCI **147** (1977) 587
AMIEL, S., *see* SHMID **144** (1977) 601
AMSEL, G., J. P. NADAI, C. ORTEGA, S. RIGO and J. SIEJKA, Precision Absolute Thin Film Standard Reference Targets for Nuclear Reaction Microanalysis of Oxygen Isotopes. Part I: ^{16}O standards **149** (1978) 705
AMSEL, G., J. P. NADAI, C. ORTEGA and J. SIEJKA, Precision Absolute Thin Film Standard Reference Targets for Nuclear Reaction Microanalysis of Oxygen Isotopes. Part II: ^{18}O and ^{17}O standards **149** (1978) 713
AMSLER, C., R. C. BROWN, D. V. BUGG, J. A. EDGINGTON, C. ORAM, D. AXEN, R. DUBOIS, L. FELAWKA, S. JACCARD, R. KEELER, J. VÁVRA, A. CLOUGH, D. GIBSON, G. A. LUDGATE, N. M. STEWART, L. P. ROBERTSON and J. R. RICHARDSON, A monoenergetic polarised neutron beam from 200 to 500 MeV **144** (1977) 401
ANAND, K. V., *see* LAWTHER **148** (1978) 389
ANDERHUB, H., J. BÖCKLIN, H. HOFER, D. MAKOWIECKI, B. SAPP, P.-G. SEILER and G. WEMMERS, On a five-plane, low-mass, self-triggering multiwire proportional chamber with cathode-coupled coaxial-cable delay-line readout . . . **142** (1977) 595
ANDERS, H. and R. E. S. BERGLUND, SST, a device to test the stability of the spot-position on a microspot CRT . . **144** (1977) 151
ANDERSEN, H. H., F. BESENBACHER and H. KNUDSEN, Stopping Power and Straggling of 65–500 keV. Lithium Ions in H_2, He, CO_2, N_2, O_2, Ne, Ar, Kr and Xe **149** (1978) 121
ANDERSEN, H. H., H. KNUDSEN and V. MARTINI, An Improved Method for Measuring Relative Stopping Powers of Light Ions in Solids **149** (1978) 137
ANDERSEN, H. H., K. N. TU and J. F. ZIEGLER, Polycrystalline Film Target Texture and Nuclear Backscattering Analysis **149** (1978) 247
ANDERSON, D. F., O. H. BODINE, R. NOVICK and R. S. WOLFF, A focusing gas scintillation proportional counter . **144** (1977) 485
ANDERSON, J. R. and R. HERZOG, An economical way to run PDP11 peripherals on a PDP15 computer **147** (1977) 611
ANDERSON, L. W., *see* GIRNIUS **143** (1977) 505
ANDREJOL, J., *see* PARLIER **148** (1978) 483
ANDRESEN, R. D., E. A. LEIMANN, A. PEACOCK and B. G. TAYLOR, The ability of a gas scintillation proportional counter to reject background events in a space environment **146** (1977) 391
ANIOL, R., *see* BECHTOLD **150** (1978) 407
ANTANASIJEVIĆ, R., Ž. TODOROVIĆ, A. STAMATOVIĆ and D. MIOČINOVIĆ, Factors affecting the sensitivity of plastic detectors to ionizing α-particle registration **147** (1977) 139
ANTANASIJEVIĆ, R., *see* SIMONOVIĆ **147** (1977) 141
ANTANASIJEVIĆ, R., *see* GRABEŽ **147** (1977) 267
ANTAR, A., *see* MOAK **150** (1978) 529
ANTIČ, M., *see* KOVAČEVIČ **148** (1978) 291
ANTTILA, A., J. KEINONEN, M. HAUTALA and I. FORSBLOM, Use of the $^{27}Al(p,\gamma)^{28}Si$, $E_p = 992$ keV resonance as a gamma-ray intensity standard **147** (1977) 501
ANTTILA, A., *see* HAUTALA **150** (1978) 599
AOYAMA, T. and T. WATANABE, A hybrid spark chamber for measuring radionuclide distributions **150** (1978) 203
APALIN, V. F., A. A. BOROVOY, A. N. KHERUVIMOV and V. I. KOPEIKIN, A low-background positron spectrometer . . **143** (1977) 71
APPENDINO, D. and A. GIORDANA, Neutron scattering simulation in a time-of-flight spectrometer using a Monte Carlo method **141** (1977) 565
APPLETON, B. R., *see* CLARK **149** (1978) 9
APPLETON, B. R., *see* ZIEGLER **149** (1978) 19
APPOLONI, C. R., *see* SALÉM **146** (1977) 320
APRILESI, G., A. LORIA, G. MAGNONI, M. MARSEGUERRA, S. MORELLI and M. R. RIVASI, Absolute estimation of radon daughter concentrations in air by α-spectrometry **148** (1978) 187
ARCIPIANI, B. and E. PEDRETTI, Some notes on the calculation of the magnetic field produced by a toroidal thick coil **147** (1977) 571
ARENS, J. F., Proposed cosmic ray carbon to nickel isotope experiment **143** (1977) 285

ARMIGLIATO, A., G. G. BENTINI, G. RUFFINI, G. BATTAGLIN, G. DELLA MEA, and A. V. DRIGO, Analysis of Boron Predeposited Silicon Wafers by Combined Ion Beam Techniques and X-Ray Microanalysis **149** (1978) 653
ARMITAGE, B. H., *see* BRADY **143** (1977) 595
ARMITAGE, B. H., J. D. F. RAMSAY and F. P. BRADY, The Measurement of Pore Size in Porous and Micro-Porous Materials Using Resonant Ion Beam Backscattering **149** (1978) 329
ARMSTRONG, D. D., C. R. EMIGH, K. L. MEIER, E. A. MEYER and J. D. SCHNEIDER, A 14 MeV intense neutron source facility. **145** (1977) 127
ARMSTRONG, T. R., *see* JOHNSON **148** (1978) 85
ARNOLD, R., *see* FETT **144** (1977) 109
ARNOLD, W., H. BERG, H. H. KRAUSE, J. ULBRICHT and G. CLAUSNITZER, The Giessen polarization facility. I. Lambshift source **143** (1977) 441
ARNOLD, W., J. ULBRICHT, H. BERG, P. KEINER, H. H. KRAUSE, R. SCHMIDT and G. CLAUSNITZER, The Giessen polarization facility. II. 1.2 MeV tandem accelerator. **143** (1977) 457
ARNOLD, W., *see* KRAUSE **143** (1977) 467
ASAMI, A. and Y. NAKAJIMA, New method for precise background determination in neutron transmission measurements with a linac **147** (1977) 577
ASARI, M., *see* KIDO. **143** (1977) 601
ASATIANI, T. L., *see* ALEXANIAN **148** (1978) 251
ASCHENBACH, J., *see* FIEDLER **147** (1977) 35
ASGHAR, M., *see* FINCH **142** (1977) 539
ASGHAR, M., *see* GUET. **150** (1978) 189
ASH, L. A., *see* TRICKER **143** (1977) 307
ASH, W. W., D. C. CHENG, B. ESPOSITO, F. FELICETTI, A. MARINI, H. OGREN, I. PERUZZI, M. PICCOLO, F. RONGA, G. SACERDOTI, L. TRASATTI, G. T. ZORN, B. BARTOLI, B. COLUZZI, A. NIGRO, V. SILVESTRINI, F. VANOLI, D. BISELLO, A. MULACHIÉ, M. NIGRO, L. PESCARA, R. SANTANGELO, E. SCHIAVUTA, D. SCANNICCHIO, P. MONACELLI, L. PAOLUZI, G. PIANO-MORTARI and F. SEBASTIANI, Description and performance of MEA, the magnetic detector at Adone. **148** (1978) 431
ATA, M. S., *see* MORSY **146** (1977) 321
ATAC, M., *see* FILATOVA **143** (1977) 17
ATAC, M., *see* OGANESSIAN **145** (1977) 251
ATO, Y., *see* MORIYA. **150** (1978) 523
AUCIELLO, O., C. LULICH, E. V. ALONSO and R. A. BARAGIOLA, A novel ultra-high vacuum manipulator with six degrees of freedom **147** (1977) 349
AUGERAT, J., *see* PARIZET **143** (1977) 363
AUGUSTYNIAK, W. M., D. BETTERIDGE and W. L. BROWN, A Miniature Electrostatic Lens for Forming MeV Millibeams. **149** (1978) 669
AUMANN, D. C., H. FALESCHINI, L. FRIEDMANN and D. WEISMANN, An experiment to synthesize and identify volatile superheavy elements **150** (1978) 233
AUSTIN, S. M., *see* BHOWMIK **143** (1977) 63
AUSTIN, S. M., *see* SCHERY **147** (1977) 399
AVAN, M., *see* PARIZET **143** (1977) 363
AVRAMOV, S., *see* KAMBUROV **143** (1977) 537
AXEN, D., *see* AMSLER **144** (1977) 401
AYGÜN, E., Results of the first measurements and a comment on a new atomic-beam magnetic-resonance spectrometer **147** (1977) 393
AZIMI-GARAKANI, D. and J. G. WILLIAMS, Automatic fission track counting using the Quantimet 720 . . . . . **147** (1977) 69
AZUELOS, G., M. BELLEAU, J. E. CRAWFORD and J. E. KITCHING, Some spatial factors associated with positron annihilation **142** (1977) 491
AZUELOS, G., J. P. MARTIN, G. R. RAO and P. TARAS, Versatile method for measuring reaction thresholds and short half-lives **150** (1978) 427

BAAN, A., *see* VAN NIEUWLAND **142** (1977) 339
BABA, H., S. BABA and T. SUZUKI, Effect of the base line shape on the unfolding of peaks in the Ge(Li) gamma-ray spectrum analysis **145** (1977) 517
BABA, H., A computer program for α spectrum analysis **148** (1978) 173
BABA, S., *see* H. BABA **145** (1977) 517
BACCO, W. L., *see* DELVECCHIO **144** (1977) 429
BACILIERI, P., L. FONTI, M. L. LUVISETTO, M. MASETTI, P. MATTEUZZI and L. SIMONI, Automatic analysis of BEBC pictures using the flying spot digitizer **145** (1977) 255
BACKELANDT, E., *see* RIGO **149** (1978) 721
BADHWAR, G. D., *see* GOLDEN **148** (1978) 179
BADING, J. R., *see* MAXSON. **142** (1977) 479
BAER, H. W., *see* GILAD **144** (1977) 103

BAERI, P., S. U. CAMPISANO, G. IMMÉ, E. RIMINI and G. DELLA MEA, Thick Sample Analysis by Ion Induced X-Rays . **149** (1978) 435

BAGGE, E., E. DÜHMKE, W. ENGE, W. HUNGER, U. ROOSE and R. SCHERZER, Fast neutron radiography for extended objects by a plastic detector technique **147** (1977) 109

BAGLIN, J. E. E. and W. K. CHU, Stopping Power of 0.3–2.6 MeV ^{4}He Ions in Fe and Ni **149** (1978) 695

BAIJOT-STROOBANTS, J. and F. BODART, Ancient pottery analysis by proton bombardment and Mössbauer spectroscopy **142** (1977) 293

BAINS, B. S. and R. B. GALLOWAY, The ^{9}Be(d, n) ^{10}B reaction as a source of polarized neutrons from a low energy accelerator **143** (1977) 295

BAINUM, D. E., *see* CARLSON **147** (1977) 353

BAKANOV, L. V., K. N. ERMAKOV, V. D. LEBEDEV, V. V. MIROSHKIN, V. V. PASHUK, M. V. STABNIKOV and M. G. TVERSKOY, The hybrid gas–liquid chamber – a new combined track detector **144** (1977) 99

BAKER, M., *see* EISBERG **146** (1977) 487

BAKICH, A. M. and L. S. PEAK, An empirical range–beta approximation **148** (1978) 167

BALCAZÁR-GARCÍA, M. and S. A. DURRANI, ^{3}He and ^{4}He spectroscopy using plastic solid-state nuclear track detectors **147** (1977) 31

BALIAN, H. G. and N. W. EDDY, Figure-of-merit (FOM), an improved criterion over the normalized chi-squared test for assessing goodness-of-fit of gamma-ray spectral peaks **145** (1977) 389

BALLET, M., *see* PARIZET **143** (1977) 363

BALLINI, R., N. BENDJABALLAH, S. CAVALLARO, B. DELAUNAY, J. DELAUNAY, J. P. FOUAN, T. NOMURA and C. TOSELLO, Recent studies of high-spin rates in the fp-shell nuclei **146** (1977) 315

BALTAKMENS, T., Accuracy of absorption methods in the identification of beta emitters **142** (1977) 535

BANGERT, K., *see* JUNGHANS **144** (1977) 293

BARAGIOLA, R. A., *see* AUCIELLO **147** (1977) 349

BARAT, C. and J. COUTELIER, Secondary electron yield in the Bendix channel electron multiplier **143** (1977) 87

BARAT, C. et J. COUTELIER, Le comportement du multiplicateur tubulaire d'electrons entre 20 et 100 °C (*Letter to the Editor*) **144** (1977) 347

BARBARINO, S., *see* ILLARI **143** (1977) 605

BARBER, D. P., J. B. DAINTON, E. GABATHULER, P. N. JOHNSON, L. C. Y. LEE, L. LITTENBERG, R. MARSHALL, J. D. B. REES, W. SMITH, J. C. THOMPSON, D. W. L. TOLFREE, D. T. WILLIAMS, T. J. BRODBECK, G. FROST, G. PATRICK, G. F. PEARCE, D. NEWTON, A. M. OSBORNE, T. SLOAN, G. R. BROOKES and P. B. WILKES, A 480-channel lead glass Cherenkov detector **145** (1977) 453

BARBIER, G., One-pass sorting method for multi-parameter experiments using a small computer **144** (1977) 561

BARGHOLTZ, CHR., K. FRANSSON, L.-E. FRÖBERG and K. SCHMIDT, An irradiation facility at the 225 cm cyclotron in Stockholm **143** (1977) 273

BARKER, J. H., *see* WESTERBERG **145** (1977) 295

BARKER, P. H., H. NAYLOR and R. E. WHITE, Limits on differential hysteresis in an Enge split-pole spectrograph and on the accuracy of proton beam energy calibrations **150** (1978) 537

BARONE, J., *see* CAHILL **142** (1977) 259

BARRETT, J. H., Studies of Defects and Surfaces by Channeling **149** (1978) 341

BARRETTE, M., *see* LECOMTE **150** (1978) 289

BÄRS, B., L. KÅLL and P. VISURI, A method for measuring power signal background and source strength in a fission reactor **143** (1977) 199

BÄRS, B. and A. M. T. KAUTTO, Comparison of some gamma detectors and environmental measurement of small ^{41}Ar releases from a Triga reactor **150** (1978) 595

BARSCHALL, H. H., *see* ULLMAIER **145** (1977) 1

BARSCHALL, H. H., *see* ALVAR **148** (1978) 303

BARTLE, C. M., D. W. GEBBIE and C. L. HOLLAS, The production of a 2–20 MeV collimated monoenergetic neutron beam of known flux using the associated particle technique **144** (1977) 437

BARTLE, C. M., Improved technique for the preparation of deuterated-polyethylene targets (*Letter to the Editor*) . **144** (1977) 599

BARTOLI, B., *see* ASH **148** (1978) 431

BASAVARAJU, G., *see* KANE **147** (1977) 507

BASHIR, S., *see* COPPENS **147** (1977) 87

BASILADZE, S. G. and W. TLACZALA, Calculation of the efficiency and losses of electronics for drift chambers **145** (1977) 565

BASILADZE, S. G., V. A. SMIRNOV and V. K. YUDIN, A coding and reading data unit from hodoscopic recording systems in the CAMAC standard **146** (1977) 587

BASSI, P., G. BUSUOLI and O. RIMONDI, A practical dosimeter for UV light **143** (1977) 195

BATEMAN, J. E., The detection of minimum ionising charged particles in channel plate electron multipliers **142** (1977) 371

BATEMAN, J. E., The detection of hard X-rays (10–140 keV) by channel plate electron multipliers **144** (1977) 537

BATES, J. C., Measurements of absorption probabilities for ultra-cold neutrons incident on strong absorbers **150** (1978) 261

BATTAGLIN, G., *see* ARMIGLIATO **149** (1978) 653

BATTISTUZZI, G., B. DAINESE, C. SIGNORINI and A. M. STEFANINI, A plunger device for in-beam measurements of nuclear lifetimes **146** (1977) 481

BAUER, K. G., Q. FAZLY, T. MAYER-KUCKUK, H. MOMMSEN and P. SCHÜRKES, X-ray analysis of thick targets with α-particles **148** (1978) 407

Bauer, P., *see* Semrad **149** (1978) 159

Bauman, P., C. Miehé, A. Huck, G. Klotz and G. Walter, Gamma-ray spectroscopy of ^{37}Cl via the ^{3}H(^{35}Cl, pγ)^{37}Cl reaction **146** (1977) 308

Bauwens, G., A. Noblet et G. Sylin, Étude et réalisation d'une source duoplasmatron de courant crête extrait supérieur à 1 A **143** (1977) 497

Bayer, R., Simple, precise, single channel pulse height analyzer with high dynamic range *(Letter to the Editor)* . . **146** (1977) 469

Bayerl, P. and P. Eichinger, A Shutter-Controlled Microbeam Combined with Scanning System for Two-Dimensional Backscattering Images **149** (1978) 663

Bazer-Bachi, R., *see* Akimov **147** (1977) 329

Beard, J., *see* Froelich **143** (1977) 473

Bearse, R. C., C. E. Burns, D. A. Close and J. J. Malanify, Elemental variations in whole blood following gamma radiation injury of mice **142** (1977) 143

Bearse, R. C., *see* Canada **142** (1977) 609

Bearse, R. C., *see* Lien **146** (1977) 609

Beauchemin, G. and R. Drouin, Study of Energy Loss $\Delta E(\theta)$ as Function of Emergence Angle for Neon and Argon Ions on Carbon Foils **149** (1978) 199

Beaujean, R., *see* Grabisch **147** (1977) 263

Bechtold, V., L. Friedrich, P. Ziegler, R. Aniol, G. Latzel and H. Paetz gen. Schieck, The Lamb shift polarized ion source at the FN tandem Van de Graaff accelerator of the University of Cologne **150** (1978) 407

Becker, H. J., *see* Vater **147** (1977) 271

Beckert, K., L. Funke, U. Gersch, P. Gippner, E. Hentschel, B. kühn, H. Kumpf, W. Rudolph, D. Schmidt, R. Weibrecht and G. Winter, Experimental investigations at the tandem accelerator EGP-10-1 of the Central Institute of Nuclear Research, Rossendorf **146** (1977) 307

Beckmann, R., U. Holm and D. Müller, Polarization enhancement of an optically pumped ^{3}He target and a simple polarization measuring method **141** (1977) 525

Bederka, Š. and J. Kral, A new system of deuterium pressure regulation in ion sources **145** (1977) 441

Bednar, J., D. Holler and W. Selove, A cementing technique for joining acrylic pieces of small surface area *(Letter to the Editor)* **146** (1977) 597

Bees, G., *see* Froelich **143** (1977) 473

Beetz, R., W. L. Posthumus, F. W. N. De Boer, J. L. Maarleveld, A. Van Der Schaaf and J. Konijn, An in-beam Ge(Li)–NaI(Tl) Compton suppression spectrometer **145** (1977) 353

Behar, M., *see* Filevich **141** (1977) 521

Behrisch, R., *see* Ullmaier **145** (1977) 1

Behrisch, R., *see* Ziegler **149** (1978) 19

Behrisch, R., *see* Roth **149** (1978) 53

Behrisch, R., *see* Altstetter **149** (1978) 59

Beinglass, I., *see* Schieber **150** (1978) 71

Beinglass, I., *see* Caine **150** (1978) 83

Beitat, U., *see* Taglauer **149** (1978) 605

Belleau, M., *see* Azuelos **142** (1977) 491

Bém, P., *see* Vincour **148** (1978) 399

Bendjaballah, N., *see* Nomura **146** (1977) 310

Bendjaballah, N., *see* Ballini **146** (1977) 315

Bendjaballah, N., J. Delaunay, T. Nomura and H. J. Kim, Yrast band of ^{56}Fe: Coexistence of prolate and oblate shapes **146** (1977) 316

Benenson, R. E., *see* Rosario-Garcia **143** (1977) 245

Bengtson, B., *see* Moszyński **142** (1977) 417

Benka, O., M. Geretschläger and H. Paul, A method of determining the depth of impurities by proton-induced X-rays **142** (1977) 83

Benka, O., M. Geretschläger and A. Kropf, Using Proton-Induced X-Rays to Determine Three Parameters of the Depth Profile of Foreign Atoms in Bulk Material **149** (1978) 441

Bennink, A. H., The preparation of self-supporting oxygen-free lead targets *(Letter to the Editor)* **146** (1977) 591

Bensch, F., *see* Mantler-Niederstätter **142** (1977) 463

Bentini, G. G., *see* Armigliato **149** (1978) 653

Benton, E. V., *see* Henke **142** (1977) 521

Berceanu, I., C. Borcea, A. Buță, I. Lazăr, M. Petrascu, M. Petrovici, V. Simion and G. Voiculescu, Resonances analog to parent states in continuum **146** (1977) 319

Berg, H., *see* Arnold **143** (1977) 441

Berg, H., *see* Arnold **143** (1977) 457

Berg, H., *see* Krause **143** (1977) 467

Berg, U. E. P., *see* Junghans **144** (1977) 293

Berggren, H., *see* Gönczi **149** (1978) 337

Berglund, R. E. S., *see* Anders **144** (1977) 151

BERKNER, K. H., D. LEUNG, R. V. PYLE, A. S. SCHLACHTER and J. W. STEARNS, Equilibrium charge-state fractions for 3.3-39 keV deuterium atoms and ions in magnesium vapor . . . **143** (1977) 157
BERNARD, A., P. CLOTH, H. CONRADS, A. COUDEVILLE, G. GOURLAN, A. JOLAS, CH. MAISONNIER and J. P. RAGER, The dense plasma focus — a high intensity neutron source . . . **145** (1977) 191
BERRY, H. G., *see* LIVINGSTON . . . **148** (1978) 125
BERRY, H. G., G. GABRIELSE and A. E. LIVINGSTON, Orientation of Fast Ions Excited in Surface Collisions . . . **149** (1978) 517
BERTHE, P., *see* TRAVERSE . . . **148** (1978) 317
BERTHER, G., *see* PINELLI . . . **150** (1978) 497
BERTOLUCCI, E., *see* FUCCI . . . **147** (1977) 587
BERTOZZI, W., M. V. HYNES, C. P. SARGENT, C. CRESWELL, P. C. DUNN, A. HIRSCH, M. LEITCH, B. NORUM, F. N. RAD and T. SASANUMA, Focal plane instrumentation: a very high resolution MWPC system for inclined tracks . . . **141** (1977) 457
BESENBACHER, F., *see* ANDERSEN . . . **149** (1978) 121
BESENBACHER, F., *see* SIGMUND . . . **150** (1978) 221
BESSET, D., B. FAVIER, L. G. GREENIAUS, R. HESS, C. LECHANOINE, D. RAPIN, D. W. WERREN and CH. WEDDIGEN, A complete experiment for p–p scattering at medium energies . . . **148** (1978) 129
BEST, R. W. B., Clean fusion concepts and efforts – A survey . . . **144** (1977) 1
BETTERIDGE, D., *see* AUGUSTYNIAK . . . **149** (1978) 669
BEVINGTON, P. R., *see* GILAD . . . **144** (1977) 103
BEVINGTON, P. R. and R. A. LESKOVEC, CWRU multiwire proportional counter readout system . . . **147** (1977) 431
BEYER, G. J., A. F. NOVGORODOV and W. D. FROMM, Trace diffusion of different nuclear reaction products in polycrystalline tantalum . . . **146** (1977) 419
BEYER, G. J., O. KNOTEK, M. JACHIM, J. JUSHKEVIČ und A. F. NOVGORODOV, Selektive Gewinnung kurzlebiger neutronendefiziter Nuklide des Yttriums, Strontiums und Rubidiums bei Verwendung von Molybdän bzw. Zirkonium als on-line Festkörpertargetmaterial . . . **148** (1978) 543
BHATTACHARYA, R. S., *see* HOONHOUT . . . **149** (1978) 355
BHATTACHARYYA, R., *see* SINHA . . . **143** (1977) 583
BHATTACHARYYA, S. K., *see* RUSSELL . . . **148** (1978) 99
BHOWMIK, R. K., R. R. DOERING, L. E. YOUNG, S. M. AUSTIN, A. GALONSKY and S. D. SCHERY, The neutron time-of-flight facility at Michigan State University . . . **143** (1977) 63
BHOWMIK, R. K., *see* SCHERY . . . **147** (1977) 399
BIAŁKOWSKI, J. and B. JANSSON, Interface magnetic tape station to CAMAC for on-line data acquisition and reduction system . . . **141** (1977) 587
BIAŁKOWSKI, J., *see* KEREK . . . **150** (1978) 479
BICHSEL, H., *see* KNOWLES . . . **147** (1977) 119
BIERSACK, J. P., D. FINK, R. HENKELMANN and K. MÜLLER, The Use of Neutron Induced Reactions for Light Element Profiling and Lattice Localization . . . **149** (1978) 93
BIGHAM, C. B., *see* LONE . . . **143** (1977) 331
BILANIUK, O. M., *see* DRYAPACHENKO . . . **141** (1977) 153
BILDSTEIN, H., *see* STRIGL . . . **142** (1977) 507
BIRD, J. R., M. D. SCOTT, L. H. RUSSELL and M. J. KENNY, Analysis Using Ion Induced Gamma Rays . . . **149** (1978) 336
BIRKMIRE, R., *see* NIILER . . . **149** (1978) 301
BIRSA, R., F. BRADAMANTE, C. DAUM, G. FIDECARO, M. FIDECARO, M. GIORGI, L. LANCERI, A. PENZO, L. PIEMONTESE, P. SCHIAVON, A. VASCOTTO and A. VILLARI, Reconstruction of the momentum of a particle moving in an axially symmetric magnetic field . . . **146** (1977) 357
BISELLO, D., *see* ASH . . . **148** (1978) 431
BISHOP, G. B. and M. E. ABOOKAZEMI, Experimental calibration of a collimated NaI detector using large diameter sources . . . **148** (1978) 553
BISHOP, G. B. and A. M. MARAFIE, Formation of a response matrix to provide benchmark data for 6 MeV gamma photon penetrations using a NaI spectrometer . . . **150** (1978) 505
BISPLINGHOFF, J., *see* HARDT . . . **143** (1977) 519
BIZZETI, P. G., Experiments on parity mixing in light nuclei . . . **146** (1977) 285
BJÄRNGARD, B. E., *see* GOULD . . . **144** (1977) 493
BLAES, R. and J. A. MIEHE, Anomalies dans la collection des charges au sein d'un détecteur Ge(Li) influence sur la résolution en temps . . . **143** (1977) 171
BLAMEY, P. J., The area of a single line Mössbauer absorption spectrum . . . **142** (1977) 553
BLATTNER, R. J., *see* LIAU . . . **149** (1978) 623
BLEWER, R. S., *see* ZIEGLER . . . **149** (1978) 19
BLEWER, R. S., Using the Proton Backscattering Method of Light Element Profiling to Achieve Tailored Low Z Impurity Distributions in Solids . . . **149** (1978) 47
BLIMAN, S., S. DOUSSON, L. FREMION et R. GELLER, Source d'ions multichargés pour vapeurs métalliques . . . **148** (1978) 213
BLINOWSKI, K., L. CHETMICKI and L. DOBRZYŃSKI, On the luminosity of a two-crystal diffractometer . . . **146** (1977) 373
BLOCH, P., *see* MAREL . . . **141** (1977) 43
BLOCH, P., *see* HOLDER . . . **148** (1978) 235

BLOOD, P., L. C. FELDMAN, and G. L. MILLER, The Rotating Sample Technique for Measurement of Random Backscattering Yields from Crystals and Its Application to β-Alumina . . . **149** (1978) 225
BLYTH, C. O., *see* KARBAN . . . **141** (1977) 387
BOBERG, G., *see* SLAPA . . . **150** (1978) 55
BÖCK, H. and M. SULEIMAN, Investigations of mineral insulated cables exposed to high temperature and intense gamma radiation . . . **148** (1978) 43
BÖCKLIN, J., *see* ANDERHUB . . . **142** (1977) 595
BOCQUET, J. P., *see* WOLLNIK . . . **144** (1977) 565
BODART, F., *see* BAIJOT-STROOBANTS . . . **142** (1977) 293
BODART, F., *see* DECONNINCK . . . **149** (1978) 609
BODE, J. C., *see* HASSELMANN . . . **142** (1977) 163
BODINE, O. H., *see* ANDERSON . . . **144** (1977) 485
BOER, J. DE., Coulomb excitation parameters . . . **146** (1977) 293
BOGERT, D., *see* RAJA . . . **143** (1977) 543
BOGOMOLOV, C. S., I. F. RAZORENOVA, I. A. RUDITSKAYA, L. S. KHRULIOVA, G. I. KOZINETS and V. V. FETISOV, A study of recording possibilities of emulsions in autoradiography conditions . . . **147** (1977) 45
BOIE, R. A. and K. R. WILDNAUER, A Hybrid Pulse Pile-Up Rejection System As Applied to Rutherford Backscattering . . . **149** (1978) 749
BOIS, R., *see* GUPTA . . . **148** (1978) 77
BOITI, A., *see* ABBONDANNO . . . **142** (1977) 605
BOITI, A., *see* ABBONDANNO . . . **148** (1978) 577
BOJSEN, J. and N. ROSSING, Biotelemetry of the glomerular filtration rate (GFR) in man by external detection of DTPA–(Sn)–^{99m}Tc with CdTe detectors . . . **150** (1978) 49
BONCHEV, TSV, A. MINKOVA, G. KUSHEV and M. GROZDANOV, An empirical method of quantitative analysis in depth-selective ME-spectroscopy . . . **147** (1977) 481
BONFAND, E., *see* AKIMOV . . . **147** (1977) 329
BONFAND, E., *see* PARLIER . . . **148** (1978) 483
BOOKER, D. V., *see* FREEMAN . . . **144** (1977) 175
BOOT, S. J., *see* HARRISON . . . **148** (1978) 511
BOOTH, R. and C. M. LOGAN, High speed rotating vacuum seal . . . **142** (1977) 471
BOOTH, R., J. C. DAVIS, C. L. HANSON, J. L. HELD, C. M. LOGAN, J. E. OSHER, R. A. NICKERSON, B. A. POHL and B. J. SCHUMACHER, Rotating target neutron generators . . . **145** (1977) 25
BOOTH, R., *see* LOGAN . . . **145** (1977) 77
BORCEA, C., *see* BERCEANU . . . **146** (1977) 319
BORCHERS, R. R., *see* ALVAR . . . **148** (1978) 303
BORDERS, J. A. and J. M. HARRIS, The Use of ^{12}C(d, p)^{13}C and ^{16}O(d, p)^{17}O Reactions to Profile Carbon and Oxygen in Solids . . . **149** (1978) 279
BORER, K., The nuclear magnetic resonance system for the CERN Muon Storage Ring . . . **143** (1977) 203
BORER, K. and F. LANGE, Absolute calibration of the NMR magnetometers and of the magnetic field measuring system used in the CERN Muon Storage Ring . . . **143** (1977) 219
BØRGESEN, P., *see* ROTH . . . **149** (1978) 53
BOROVOY, A. A., *see* APALIN . . . **143** (1977) 71
BORST, H., The influence of the kinetic energy of electron avalanches on the gas amplification factor of methane-filled proportional counters . . . **150** (1978) 437
BOSCH, F., *see* NOBILING . . . **142** (1977) 49
BOSCH, F., A. EL GORESY, B. MARTIN, B. POVH, R. NOBILING, D. SCHWALM and K. TRAXEL, The Heidelberg Proton Microprobe . . . **149** (1978) 665
BOSMAN, J. J. and H. POSTMA, Spin assignments in low-energy neutron-capture reactions using polarized neutrons and oriented target nuclei . . . **148** (1978) 331
BOSMAN, M., P. LELEUX, P. LIPNIK, P. MACQ, J. P. MEULDERS, R. PETIT, C. PIRART and G. VALENDUC, Neutron beam facility at the Louvain-la-Neuve isochronous cyclotron; cross sections for fast neutron production . . . **148** (1978) 363
BOSTICK, W., *see* ZUCKER . . . **145** (1977) 185
BØTTER-JENSEN, L., H. J. M. HANSEN and P. THEODORSSON, A multicounter system for scanning ultra-low-level radiochromatograms . . . **144** (1977) 529
BØTTIGER, J., *see* ALTSTETTER . . . **149** (1978) 59
BOTTIGLI, U., *see* FUCCI . . . **147** (1977) 587
BOUERES, L. C., *see* ORSINI . . . **142** (1977) 27
BOWLES, T. J., *see* ROBERTSON . . . **147** (1977) 361
BOWMAN, J. D., *see* GILAD . . . **144** (1977) 103
BOWMAN, J. D. and R. H. HEFFNER, A novel zero time detector for heavy ion spectroscopy . . . **148** (1978) 503
BOWMAN, W. W., *see* MACMURDO . . . **141** (1977) 299
BOYSEN, J. and W. D. BREWER, The use of high-purity germanium diodes as low-temperature β-particle detectors . . . **141** (1977) 483

Bozek, E., C. Gehringer, J. C. Merdinger, K. Ogawa and J. P. Vivien, Perturbed angular distributions in ^{36}Cl and ^{40}K **146** (1977) 327
Bracco, G., *see* Pinelli **150** (1978) 497
Bradamante, F., *see* Birsa **146** (1977) 357
Bradaschia, C., *see* Fucci **147** (1977) 587
Brady, F. P. and B. H. Armitage, Pore size determination from charged particle energy loss measurement **143** (1977) 595
Brady, F. P., *see* Armitage **149** (1978) 329
Brand, K., The reflected beam sputter source. **142** (1977) 519
Brandolini, F., C. Rossi-Alvarez, M. Uhrmacher and K. P. Lieb, Implantation perturbed angular distribution for argon and potassium in iron **146** (1977) 326
Brandt, R., *see* Vater **147** (1977) 271
Brandt, S., C. Grupen, M. Roschangar, B. Schöfer and G. Knies, A high resolution low cost charge sensitive amplifier **145** (1977) 593
Brassard, C., *see* Ziegler **149** (1978) 19
Brassard, C., *see* L'Ecuyer **149** (1978) 271
Braun, M., *see* Chu **149** (1978) 115
Braunecker, B., R. Hauck and K. Reuter, Pattern recognition with spatially modulated X-rays **150** (1978) 321
Braun-Elwert, G., J. Huber, G. Korschinek, W. Kutschera, W. Goldstein and R. L. Hershberger, The negative-ion test injector of the Munich MP tandem and the Hiconex 834 sputter source **146** (1977) 121
Breare, J. M., J. E. Chaney, P. J. Doe, W. El-Disouki, B. C. Nandi and I. D. Tait, Measurement of γ-ray energy using a high pressure flash tube chamber **143** (1977) 41
Breare, J. M., P. J. Doe, W. El-Disouki, B. C. Nandi and I. D. Tait, Determination of γ-ray position using a high pressure flash tube chamber **143** (1977) 49
Breare, J. M., P. J. Doe and B. C. Nandi, The flash tube discharge mechanism from a study of the digitization pulse output **147** (1977) 341
Breare, J. M., P. J. Doe and B. C. Nandi, Effect of induced clearing field on the performance of flash tubes **150** (1978) 433
Brehin, S., *see* Marel **141** (1977) 43
Bréhin, S., *see* Holder **148** (1978) 235
Brendle, M., A microprocessor-controlled digital spectrum stabilizer **141** (1977) 577
Brendle, M., A method to improve the differential linearity of successive-approximation analog-to-digital converters (*Letter to the Editor*) **144** (1977) 357
Brennan, J. G., D. J. Land, M. D. Brown and D. G. Simons, Theoretical Interpretations of the Energy Dependence of Electronic Stopping Power **149** (1978) 143
Brentano, P. von, *see* Scharfer **146** (1977) 573
Breskin, A., A subnanosecond, low pressure, MWPC for heavily ionizing particles **141** (1977) 505
Breskin, A., G. Charpak, C. Demierre, S. Majewski, A. Policarpo, F. Sauli and J. C. Santiard, High-accuracy, bidimensional read-out of proportional chambers with short resolution times **143** (1977) 29
Breskin, A. and N. Zwang, Timing properties of parallel plate avalanche counters with light particles (*Letter to the Editor*) **144** (1977) 609
Breskin, A. and N. Zwang, A simple and accurate method for bidimensional position read-out of parallel plate avalanche counters (*Letter to the Editor*) **146** (1977) 461
Breskin, A., T. Tserruya and N. Zwang, A fast, bidimensional, positron-sensitive detection system for heavy ions . **148** (1978) 275
Brewer, D., *see* Boysen **141** (1977) 483
Brice, D. K. and R. A. Langley, Analysis of Straggling Measurements by the Backscattering Technique **149** (1978) 191
Brice, D. K., *see* Langley **149** (1978) 195
Bridwell, L. B., *see* Moak. **150** (1978) 529
Brodbeck, T. J., *see* Barber **145** (1977) 453
Brodzinski, R. L., *see* Nielson **143** (1977) 385
Bromley, D. B., The physics of large tandem. **146** (1977) 1
Brongersma, H. H. and T. M. Buck, Low-Energy Ion Scattering (LEIS) for Composition and Structure Analysis of the Outer Surface **149** (1978) 569
Brookes, G. R., *see* Barber **145** (1977) 453
Bröring, J., *see* Ghidini **147** (1977) 313
Brown, K. L., F. Rothacker, D. C. Carey and C. Iselin, The effect of beam line magnet misalignments **141** (1977) 393
Brown, M. D., *see* Brennan **149** (1978) 143
Brown, R. C., *see* Amsler **144** (1977) 401
Brown, W. L., *see* Augustyniak **149** (1978) 669
Bruandet, J. F., *see* Tsan Ung Chan. **146** (1977) 314
Brückmann, H. and U. Holm, A compact versatile beam steering unit **146** (1977) 339
Bruere-Dawson, R. and A. Patiou, Localisation du passage d'une particule chargée dans un compteur proportionnel multifils a l'aide de lignes a retard électromagnétique **145** (1977) 607
Brugger, R. M., *see* Royer **145** (1977) 245
Brune, D., U. Lindh and J. Lorenzen, A proton semi-microbeam device for surface analysis **142** (1977) 51

BRYMAN, D., J. CRESSWELL and R. SKEGG, Delay line readout of the anode wires in a multiwire proportional chamber . **141** (1977) 573
BRYSK, H., Effective solid angle of scintillation counter for fast neutrons . . . **143** (1977) 327
BUCHANAN, J. A., *see* HOFTIEZER . . . **147** (1977) 465
BUCHMÜLLER, R., Diskriminierung von Neutronen und Gammaquanten . . . **145** (1977) 331
BUCK, T. M., *see* BRONGERSMA . . . **149** (1978) 569
BUCK, T. M., G. H. WHEATLEY, G. L. MILLER, D. A. H. ROBINSON and Y.-S. CHEN, Comparison of a Time-of-Flight System with an Electrostatic Analyzer in Low-Energy Ion Scattering . . . **149** (1978) 591
BÜCKER, H., *see* HILDEBRAND . . . **147** (1977) 19
BUCKL, M. and W. SCHOTT, Field coupling and higher order aberrations of a magnetic quadrupole doublet consisting of short closely arranged lenses . . . **141** (1977) 599
BUDNAR, M., *see* KUMP . . . **142** (1977) 205
BUDNAR, M., *see* RUPNIK . . . **142** (1977) 209
BUGEAT, J. P., *see* LIGEON . . . **149** (1978) 99
BÜGET, N., Isomeric cross section ratios in the $^{197}Au(n,2n)^{196}Au$ reaction . . . **146** (1977) 535
BUGG, D. V., *see* AMSLER . . . **144** (1977) 401
BUGORSKY, A. P., V. N. GORYACHEV, V. I. KOCHETKOV, V. A. KRENDELEV, V. I. KURBAKOV, A. I. MUKHIN, V. I. POLETAEV, V. G. RYBAKOV, V. N. RYCHENKOV, YU. M. SVIRIDOV, V. YA. UGLEKOV, A. A. VOLKOV and A. S. VOVENKO, Muon flux measuring system for neutrino experiments at the IHEP accelerator . . . **146** (1977) 367
BUKHARI, K. M., *see* KHAN . . . **147** (1977) 125
BUNGE, P. J., A miniature multi-channel pulse height analyzer with an LED matrix display . . . **148** (1978) 51
BUNIAK, M., *see* UMIASTOWSKI . . . **141** (1977) 347
BURGE, E. J., Errors and mistakes in the traditional optimum design of experiments on exponential absorption . . **144** (1977) 547
BURGKHARDT, B., D. SINGH and E. PIESCH, High-dose characteristics of CaF_2 and $CaSO_4$ thermoluminescent dosimeters . . . **141** (1977) 363
BURGKHARDT, B., *see* SINGH . . . **142** (1977) 409
BURGKHARDT, B., E. PIESCH and D. SINGH, High-dose characteristic of LiF and $Li_2B_4O_7$ thermoluminescent dosimeters . . . **148** (1978) 613
BURGKHARDT, B., E. PIESCH and A. SCHMITT, Depth dose distribution of 9 MeV photons in a single phosphate glass compared to phantom results . . . **141** (1977) 141
BURNS, C. E., *see* BEARSE . . . **142** (1977) 143
BURNS, M., P. PAPPAS, M. S. FELD and D. E. MURNICK, Laser induced nuclear orientation effects . . . **141** (1977) 429
BURNSED, D. J., *see* MUGA . . . **150** (1978) 183
BUSUOLI, G., *see* BASSI . . . **143** (1977) 195
BUTĂ, A., *see* BERCEANU . . . **146** (1977) 319
BUTLER, J. W. and C. M. DAVISSON, Effective Beam Energy Spreads with Molecular Ion Beams . . . **149** (1978) 183

CAHILL, T. A., Automated analyses of environmental samples . . . **142** (1977) 1
CAHILL, T. A., R. A. ELDRED, R. G. FLOCCHINI and J. BARONE, Statistical techniques for handling PIXE data . . . **142** (1977) 259
CAHILL, T. A., R. G. FLOCCHINI, J. W. NELSON, N. R. FLETCHER, H. C. KAUFMANN and L. R. MEDSKER, The use of PIXE in generating evidence for primordial superheavy elements . . . **142** (1977) 307
CAHILL, T. A., Sensitivity, Quality Assurance, and Cost in Automated Analysis via Ion Induced X-Rays . . . **149** (1978) 431
CAILLOT, M., Defect creation rates in CdTe irradiated by electrons . . . **150** (1978) 39
CAINE, S., A. HOLZER, I. BEINGLASS, G. DISHON, E. LOWENTHAL and M. SCHIEBER, Direct current and pulse counting measurements on in-vivo mercuric iodide medical probes . . . **150** (1978) 83
CALLIGARIS, F., P. CIUTI, I. GABRIELLI and R. GIACOMICH, Theoretical model of light-pulse propagation in pipes verified by single-photon technique . . . **148** (1978) 323
CAMERON, J. M., *see* SOUKUP . . . **141** (1977) 409
CAMERON, J. M., *see* JAMES . . . **142** (1977) 443
CAMERON, J. M., P. KITCHING, R. H. MCCAMIS, C. A. MILLER, G. A. MOSS, J. G. ROGERS, G. ROY, W. STETZ, C. A. GOULDING and W. T. H. VAN OERS, The efficiency of counter telescopes for detecting intermediate-energy protons **143** (1977) 399
CAMERON, J. M., R. H. MCCAMIS, G. A. MILLER, G. A. MOSS, G. ROY and A. W. STETZ, Energy loss and straggling of low energy alphas in helium *(Letter to the Editor)* . . . **145** (1977) 405
CAMPBELL, J. L., Specimen preparation in PIXE analysis . . . **142** (1977) 263
CAMPBELL, J. L., B. H. ORR and A. C. NOBLE, PIXE analysis in viticulture and oenology . . . **142** (1977) 289
CAMPBELL, J. L., *see* JORCH . . . **143** (1977) 551
CAMPELL, A. B. and B. D. SARTWELL, The Use of Proton-Excited X-Rays for Thin-Film Profiling . . . **149** (1978) 496
CAMPISANO, S. U., G. CIAVOLA, E. COSTANZO, G. FOTI and E. RIMINI, Tilting Angle Dependence of Rutherford Backscattering: Uniformity of Near Surface Layers . . . **149** (1978) 229
CAMPISANO, S. U., G. FOTI, E. RIMINI and S. T. PICRAUX, Channeling Analysis of Stacking Defects in Expitaxial Si Layers . . . **149** (1978) 371
CAMPISANO, S. U., *see* BAERI . . . **149** (1978) 431
CANADA, T. R., R. C. BEARSE and J. W. TAPE, An accurate determination of the plutonium K-absorption edge energy using gamma-ray attenuation . . . **142** (1977) 609

CANNELL, L. E., *see* COOPE **150** (1978) 341
CANTORE, A., *see* GHIDINI **147** (1977) 313
CAR, R., *see* GHIDINI **147** (1977) 313
CARBUCICCHIO, M., Scattering technique for electron Mössbauer spectroscopy **144** (1977) 225
CARDINAL, C., *see* L'ECUYER **149** (1978) 271
CAREY, D. C., *see* BROWN **141** (1977) 393
CARLIER, R., J. C. KRUPA, M. HUSSONNOIS, M. GENET and R. GUILLAUMONT, Self-induced α-spectrum of $ThBr_4$ single crystal **143** (1977) 613
CARLSON, J. D., R. W. FINLAY and D. E. BAINUM, High intrinsic efficiency, time-compensated scintillation detector . **147** (1977) 353
CARLSON, R. F., *see* SOURKES **143** (1977) 589
CARNAL, E., *see* GOSTELY **150** (1978) 459
CARNEIRO, K., *see* YSSING HANSEN **143** (1977) 569
CARPENTER, J. M., Pulse spallation neutron sources for slow neutron scattering **145** (1977) 91
CARRAZ, L. C., I. R. HALDORSEN, H. L. RAVN, M. SKARESTAD and L. WESTGAARD, Fast release of nuclear reaction products from refractory matrices **148** (1978) 217
CARREIRA, E. M., *see* CRANNELL **142** (1977) 455
CARROLL, J. B., *see* GEAGA **141** (1977) 263
CARSON, D. W., A novel method of Mössbauer data calibration using a laser interferometer **145** (1977) 359
CARTWRIGHT, B. G., *see* AHLEN **143** (1977) 513
CARTWRIGHT, B. G., *see* AHLEN **147** (1977) 321
CASTILLO, R., H. HORA, F. L. KANE, V. F. LAWRENCE, M. B. NICHOLSON-FLORENCE, M. M. NOVAK, P. S. RAY, J. R. SHEPANSKI, R. I. SUTHERLAND, A. I. TSIVINSKY and H. A. WARD, Advanced fuel nuclear reaction feasibility using laser compression II **144** (1977) 27
CATALANO, E. and J. B. CZIRR, Development of a new scintillator containing uranium **143** (1977) 61
CATALANO, E., *see* CZIRR **143** (1977) 487
CATHENOZ, M., *see* ROHRBACH **141** (1977) 229
CAVALLARO, S., *see* BALLINI **146** (1977) 315
CEALLAIGH, C. O., *see* FOWLER **147** (1977) 195
CEALLAIGH, C.O., *see* FOWLER **147** (1977) 201
ČECHÁK, T., *see* ŠEDA **144** (1977) 557
CELANI, F., An autonomous CAMAC crate controller for sequential operations **141** (1977) 593
CENTRO, S., M. DE GIORGI and L. VENTURA, The CYCL-OP, a new low cost approach to analog signal fast acquisition for large particle detectors **147** (1977) 599
CENTRO, S., M. DE GIORGI and D. PASCOLI, Fast AD conversion of pulse sequences **150** (1978) 565
CERNIGOI, C., N. GRION, G. PAULI and B. SAITTA, Preliminary results on the time resolution of a plastic scintillator neutron counter of large area for neutrons of 16 MeV **144** (1977) 479
CERRI, C. and F. SERGIAMPIETRI, Test of a liquid argon calorimeter with very thin sampling **141** (1977) 207
CESAR, M. F., *see* MAFRA **143** (1977) 117
CHADDERTON, L. T., F. JOHNSON and S. A. KOMOLOV, On the Annealing Behaviour of Dysprosium Ion Implanted Nickel: A Combined Study Using Retherford Backscattering, Transmission Electron Microscopy and Total Current Spectroscopy **149** (1978) 639
CHALUPKA, A., G. STENGL and H. VONACH, Temperature dependence of the pulse shape discrimination properties of NE 213 . . . . . **144** (1977) 167
CHALUPKA, A., G. STENGL, M. R. MAIER and P. SPERR, On the low-energy performance of the Munich PSD system **150** (1978) 209
CHAMI, A. C., *see* LIGEON **149** (1978) 99
CHAN, J., *see* CHO **148** (1978) 415
CHAN CHOI, *see* MILEY **144** (1977) 9
CHANEY, J. E., *see* BREARE **143** (1977) 41
CHANG, C. and W. SU, The relation photoionization cross section measurement by X-ray detection **148** (1978) 561
CHANG, R. P. H., *see* KAUFFMAN **149** (1978) 619
CHANNON, S. R., Methods of "Tailoring" ion distributions in phase space ("morphodynamics") **144** (1977) 57
CHAPMAN, K. R., Mounting of large stripper foils for use in the terminal of an electrostatic accelerator **148** (1978) 209
CHARALAMBOUS, S. and C. PAPASTEFANOU, On the radioactivity of fossil bones **142** (1977) 581
CHARALAMBOUS, S. and M. CHARDALAS, Fermi momentum and contribution of core electrons to annihilation for In and Sn (*Letter to the Editor*) **144** (1977) 361
CHARALAMBOUS, S., *see* PETRIDOU **150** (1978) 247
CHARDALAS, M., *see* CHARALAMBOUS **144** (1977) 361
CHARPAK, G., C. DEMIERRE, R. KAHN, J. C. SANTIARD and F. SAULI, Some properties of spherical drift chambers . **141** (1977) 449
CHARPAK, G., *see* BRESKIN **143** (1977) 29
CHARPAK, G., G. PETERSEN, A. POLICARPO and F. SAULI, Progress in high-accuracy proportional chambers **148** (1978) 471
CHAUDHRY, P., *see* MUBARAKMAND **147** (1977) 279
CHELNOKOV, L. P., *see* GAEGELER **150** (1978) 173
CHEN, C. J., Man-made geothermal energy source (*Letter to the Editor*) **150** (1978) 365

CHEN, H. H. and J. F. LATHROP, Observation of ionization electrons drifting large distances in liquid argon *(Letter to the Editor)* **150** (1978) 585
CHEN, J. R., Ionization cross sections for L-subshell X-rays in Pt, Au and Hg using proton bombardment **142** (1977) 9
CHEN, S. H., *see* SKÖLD **145** (1977) 115
CHEN, Y.-S., *see* BUCK **149** (1978) 591
CHENEVERT, G. M., P. M. DE LUCA, C. A. KELSEY and R. P. TORTI, A tritium gas target as an intense source of 14 MeV neutrons **145** (1977) 149
CHENG, D. C., *see* ASH **148** (1978) 431
CHESHIRE, D. L., R. W. HUGGETT, W. V. JONES, W. K. H. SCHMIDT and M. SIMON, Measurements of cascades initiated by 5–300 GeV hadrons in a tungsten ionization spectrometer **141** (1977) 219
CHETMICKI, L., *see* BLINOWSKI **146** (1977) 373
CHIA-LIANG TSENG, *see* PIN-CHIEH HSU **147** (1977) 529
CHIBA, M., *see* IMANISHI **150** (1978) 131
CHILES, M. M., *see* LEVINS **146** (1977) 517
CHIRIKOV, B. V., V. A. TAYURSKI, H.-J. MÖHRING, J. RANFT and V. SCHIRRMEISTER, Optimization of antiproton fluxes from targets using hadron cascade calculations **144** (1977) 129
CHIVERS, D. J., *see* FREEMAN **143** (1977) 99
CHIVERS, D. J., *see* FREEMAN **145** (1977) 473
CHIWAKI, M., *see* YAMAZAKI **144** (1977) 515
CHO, Z. H., M. SINGH, L. ERIKSSON and J. CHAN, Coincidence electronics for the circular ring transaxial positron camera **148** (1978) 415
CHRISTENSEN, D. L., V. G. MOSSOTTI, T. W. RUSCH and R. L. ERICKSON, Oscillatory Scattered Ion Yields from Nonconductive Materials **149** (1978) 587
CHRISTODOULIDES, C., *see* PETRIDOU **150** (1978) 241
CHRISTODOULIDES, C. E., W. A. GRANT and J. S. WILLIAMS, The Determination of High Dose Implantation Profiles Using Low-Angle Rutherford Backscattering **149** (1978) 219
CHU, T. C., *see* SHIOKAWA **142** (1977) 199
CHU, W. K., *see* ZIEGLER **149** (1978) 19
CHU, W. K., M. BRAUN, J. A. DAVIES, N. MATSUNAMI and D. A. THOMPSON, Energy Loss of He Ions in Solidified Gases **149** (1978) 115
CHU, W. K., *see* LURIO **149** (1978) 387
CHU, W. K., *see* BAGLIN **149** (1978) 695
CHUANG, L. S. and M. WADA, A muon telescope for the measurement of the spectra and zenith angle dependence of slow muons **150** (1978) 313
CHUTE, F. S., *see* MCPHERSON **148** (1978) 1
CIAVOLA, G., *see* CAMPISANO **149** (1978) 229
CINDRO, N., The so-called molecular resonances: some new aspects **146** (1977) 279
CIUTI, P., *see* CALLIGARIS **148** (1978) 323
CIVELEKOĞLU, Y., *see* NOBILING **142** (1977) 49
CLAMPITT, R. and D. K. JEFFERIES, Miniature Ion Sources for Analytical Instruments **149** (1978) 739
CLAPHAM, V. M., *see* FOWLER **147** (1977) 195
CLARK, G. J., C. W. WHITE, D. D. ALLRED, B. R. APPLETON, F. B. KOCH and C. W. MAGEE, The Application of Nuclear Reactions for Quantitative Hydrogen Analysis in a Variety of Different Materials Problems **149** (1978) 9
CLARK, G. L., *see* ZIEGLER **149** (1978) 19
CLAUSER, M. J., *see* RAMIREZ **145** (1977) 179
CLAUSNITZER, G., *see* ARNOLD **143** (1977) 441
CLAUSNITZER, G., *see* ARNOLD **143** (1977) 457
CLAUSNITZER, G., *see* KRAUSE **143** (1977) 467
CLAUSNITZER, G., *see* LOOSE-WAGENBACH **150** (1978) 345
CLEGG, T. B., *see* LISOWSKI **146** (1977) 477
CLELAND, M. R. and B. P. OFFERMANN, The dynagen IV – a compact high-intensity neutron source **145** (1977) 41
CLERCQ, A. DE, *see* THIERENS **146** (1977) 330
CLOSE, D. A., *see* BEARSE **142** (1977) 143
CLOTH, P., *see* KUIJPERS **144** (1977) 215
CLOTH, P., *see* BERNARD **145** (1977) 191
CLOUGH, A., *see* AMSLER **144** (1977) 401
COBB, J. H. and D. J. MILLER, A solid argon ionization chamber **141** (1977) 433
COFFEY, D., A. MANZ, R. SETTLES, S. REUCROFT and C. E. ROOS, The 11.7 T solenoid of the hyperon bubble chamber **150** (1978) 377
COHEN, B. L., *see* ZIEGLER **149** (1978) 19
COHEN, C., *see* RIGO **149** (1978) 721
COÏSSON, R., Narrow band visible synchroton radiation from high energy proton beams **143** (1977) 241
COJOCARU, M., *see* SHANI **146** (1977) 531
COLAS, J., *see* ROHRBACH **141** (1977) 229

Cole, R., *see* Eisberg **146** (1977) 487
Colla, G., P. L. Frabetti, C. Merli, C. Quarantini, R. Volta, P. D'Angelo, S. Grabar, P. F. Manfredi and S. Micheletti, Use of a MWPC in a big magnetic spectrometer as a counter hodoscope for fast majority discrimination **148** (1978) 489
Collin, W., *see* Grosswendt **144** (1977) 271
Colton, E. and D. R. Moffett, Splitting of the ZGS polarized proton beam to two beams utilizing a common front stage *(Letter to the Editor)* **146** (1977) 593
Coluzzi, B., *see* Ash **148** (1978) 431
Comas, J., *see* Knudson **149** (1978) 507
Comas, J., *see* Huber **149** (1978) 635
Comby, G. et Ph. Mangeot, Memoires a plasma associées a un détecteur de particules **150** (1978) 119
Conde, C. A. N., The Gas Proportional Scintillation Counter: Evaluation of Performances with Interest for Analysis by Ion Beam Techniques **149** (1978) 685
Condon, P. E., Reconstruction of missing data in principal component analysis *(Letter to the Editor)* **146** (1977) 611
Connell, K. A., R. A. Cunningham, M. Edwards, E. Gabathuler, P. R. Norton and R. P. Walker, Development of a large area drift chamber with copper strip cathode planes **144** (1977) 453
Conrads, H., *see* Bernard **145** (1977) 191
Coope, D. F., R. Laszewski and L. E. Cannell, The measured energy response of a 50 cm^3 Ge(Li) detector to photons from 4 to 10 MeV **150** (1978) 341
Cooper, M. D., *see* Gilad **144** (1977) 103
Coppens, R., P. Richard and S. Bashir, Utilization of α-autoradiography of rocks in the investigation of the radioactive equilibrium **147** (1977) 87
Coquette, A., Methode de mesure absolue de la section efficace totale de creation de paires pres du seuil **144** (1977) 571
Corato, M. Di, *see* Ghidini **147** (1977) 313
Cosman, E., *see* Tsoupas **148** (1978) 93
Costanzo, E., *see* Campisano **149** (1978) 229
Coudeville, A., *see* Bernard **145** (1977) 191
Courtney, W. J., *see* Nelson **142** (1977) 127
Courtney, W. J., *see* Kaufmann **142** (1977) 251
Courtney, W. J., *see* Hudson **149** (1978) 307
Courtois, J. C., *see* Parlier **148** (1978) 483
Coutelier, J., *see* Barat **143** (1977) 87
Coutelier, J., *see* Barat **144** (1977) 347
Covello, A. and G. Giberti, E2 transitions within the ground-state band of deformed even-even nuclei **146** (1977) 189
Cowgill, D. F., Dynamic implant profiling by low-energy nuclear reaction spectroscopy **145** (1977) 507
Cox, A. J., *see* Sourkes **143** (1977) 589
Crannell, H., G. S. Maurer and E. M. Carreira, Operation of a conventional multiwire proportional chamber as a drift chamber **142** (1977) 455
Cranshaw, T. E., *see* Tricker **143** (1977) 307
Crawford, J. E., *see* Azuelos **142** (1977) 491
Crawford, K., *see* Sköld **145** (1977) 115
Cresswell, J., *see* Bryman **141** (1977) 573
Cresswell, J. R., *see* Palmer **146** (1977) 328
Creswell, C., *see* Bertozzi **141** (1977) 457
Crider, C. A., J. M. Poate, J. E. Rowe and G. H. Wheatley, A UHV Chamber for Metal–Semiconductor and Metal–Metal Thin Film Studies **149** (1978) 701
Cross, J. B., R. Zeisler and E. A. Schweikert, High energy heavy-ion induced X-ray emission analysis **142** (1977) 111
Crumpton, D., *see* Khan **144** (1977) 351
Csepregi, L., *see* Foti **149** (1978) 381
Cumalat, J., *see* Morrison **143** (1977) 311
Cunningham, R. A., *see* Connell **144** (1977) 453
Cunningham, R. A., D. G. Taylor and R. P. Walker, A small multiwire proportional chamber of novel design . . **147** (1977) 471
Cuomo, J. J., *see* Lurio **149** (1978) 155
Cupérus, J. H., Monitoring of particle beams at high frequencies **145** (1977) 219
Cupérus, J. H., Edge effect in beam monitors **145** (1977) 233
Currie, C. M., *see* Westerberg **145** (1977) 295
Curry, J. and V. W. Steward, The response of screen-film to end-of-range proton exposures **147** (1977) 541
Curtin, M. S., *see* Nolen, Jr. **150** (1978) 581
Cverna, F. H., *see* Gilad **144** (1977) 103
Czanderna, A. W., *see* Helbig **149** (1978) 581
Czirr, J. B., *see* Catalano **143** (1977) 61
Czirr, J. B. and E. Catalano, Cerium-activitated BaF_2 and CaF_2 scintillators **143** (1977) 487
Czirr, J. B. and D. W. Shosa, A totally absorbing time-of-flight neutron detector **145** (1977) 465

DABROWSKI, A. J., J. IWAŃCZYK, W. M. SZYMCZYK, P. KOKOSCHINEGG, J. STELZHAMMER and R. TRIBOULET, Advantages and limitations of n-type low resistivity cadmium telluride nuclear radiation detectors **150** (1978) 25
DABROWSKI, J. and P. HAENSEL, The deformation of the Fermi surface in polarized nuclear matter **146** (1977) 317
DAEHNICK, W. W., *see* DELVECCHIO **144** (1977) 429
DAG REPPEN, N., *see* DE MELLO **144** (1977) 43
DAHLBORG, U., *see* DAVIDOVIC **142** (1977) 601
DAIGO, M., *see* IMANISHI **150** (1978) 131
DAINESE, B., *see* BATTISTUZZI **146** (1977) 481
DAINTON, J. B., *see* BARBER **145** (1977) 453
DAKUBU, T. and W. B. GILBOY, An unfolding procedure for slowly varying pulse height spectra produced by β particles in Si(Li) detectors **150** (1978) 479
DALTON, C. G., R. E. MISCHKE and D. T. SCOTT, CAMAC interface module for pace ADC system **141** (1977) 595
DAMM, G., *see* THIEL **147** (1977) 105
D'ANGELO, P., *see* GHIDINI **147** (1977) 313
D'ANGELO, P., *see* COLLA **148** (1978) 489
DANIEL, H., Phase space imaging of a beam of charged particles by frictional forces **147** (1977) 297
DANIEL, H., Calculation of the Coulomb capture of mesonic particles in inhomogeneous matter *(Letter to the Editor)* **150** (1978) 609
DANIELS, C. J. and T. R. LEE, Digital acquisition system for measurement of time varying X-radiation fields **143** (1977) 187
DATLOWE, D. W., The role of the waveform in pulse pile-up **145** (1977) 365
DATLOWE, D. W., Pulse pile-up in nuclear particle detection systems with rapidly varing counting rates **145** (1977) 379
DAUM, C., *see* BIRSA **146** (1977) 357
DAUWE, C., *see* DORIKENS **141** (1977) 561
DAVIDOVIC, M. and U. DAHLBORG, Calculation of the efficiency of a cylindrical detector for thermal neutrons with due account taken of the influence of the wall **142** (1977) 601
DAVIDS, C. N., *see* PARKS **143** (1977) 93
DAVIES, J. A., *see* CHU **149** (1978) 115
DAVIS, J. C., *see* BOOTH **145** (1977) 25
DAVIS, J. C., H. W. LEFEVRE, C. H. POPPE, D. M. DRAKE and L. R. VEESER, The H(t, n)^{3}He Reaction for Depth Profiling of Hydrogen by Neutron Time-of-Flight **149** (1978) 41
DAVISSON, C. M., *see* BUTLER . . . . .
DAVYDOV, V. A., A. V. INYAKIN, V. A. KACHANOV, R. N. KRASNOKUTSKY, YU. V. MIKHAILOV, YU. D. PROKOSHKIN and R. S. SHUVALOV, Particle identification in a hodoscope Cherenkov spectrometer **145** (1977) 267
DAWOOD, R. I., *see* IBRAHIM **150** (1978) 555
DAYON, M. I., *see* ALEXANIAN **148** (1978) 251
DEARNALEY, G., G. M. MCCRACKEN, J. F. TURNER and J. VINCE, The Use of Nitrogen Ion Backscattering for the Analysis of Metal Impurities in a Tokamak Plasma **149** (1978) 253
DEBEAUVAIS, M., *see* TRIPIER **147** (1977) 221
DE BLASI, C., S. GALASSINI, C. MANFREDOTTI, G. MICOCCI, L. RUGGIERO and A. TEPORE, Photoelectronic properties of HgI_2 . . . . . **150** (1978) 103
DE BOER, F. W. N., *see* BEETZ **145** (1977) 353
DEBRUN, J. L., *see* HUBER **149** (1978) 543
DEBRUN, J-L., *see* ISHII **150** (1978) 213
DECKER, J., Are generalized or unified criteria possible? **144** (1977) 81
DECKER, R., *see* FINCH **142** (1977) 539
DE CLERCQ, A., E. JACOBS, D. DE FRENNE, H. THIERENS, P. D'HONDT and A. J. DERUYTTER, A versatile CAMAC based linear PHA system **144** (1977) 593
DECONNINCK, G., Trace element analysis in liquids by proton induced X-ray emission **142** (1977) 275
DECONNINCK G. and F. BODART, New Developments in Non Vacuum Analysis **149** (1978) 609
DE FRENNE, D., *see* DE CLERCQ **144** (1977) 593
DE FRENNE, D., *see* THIERENS **146** (1977) 330
DEGENER, L., *see* SCHARFER **146** (1977) 573
DE GIORGI, M., *see* CENTRO **150** (1978) 565
DEGRANGE, B., *see* FETT **144** (1977) 109
DE JONG, M. S., *see* SOURKES **143** (1977) 589
DE JONG, M. S., *see* GOULDING **148** (1978) 5
DELAUNAY, B., Heavy ion stripping **146** (1977) 101
DELAUNAY, B., *see* BALLINI **146** (1977) 315
DELAUNAY, J., *see* NOMURA **146** (1977) 310
DELAUNAY, J., *see* BALLINI **146** (1977) 315
DELAUNAY, J., *see* BENDJABALLAH **146** (1977) 316
DEL BIANCO, W., *see* KIM **143** (1977) 371
DE LEEUW, J. H., A. A. HAASZ and P. C. STANGEBY, Canadian gas target neutron generator research **145** (1977) 119
DELINE, V. R., *see* ZIEGLER **149** (1978) 19

Della Mea, G., *see* Baeri **149** (1978) 431
Della Mea, G., *see* Armigliato **149** (1978) 653
De Lotto, I. and A. Ghirardi, Automatic peak-locating techniques for γ-ray spectra **143** (1977) 617
De Luca, P. M., *see* Chenevert **145** (1977) 149
Delvecchio, R. M., W. L. Bacco, W. L. McNamee and W. W. Daehnick, A fast transport system for fragile targets in high vacuum **144** (1977) 429
Demanins, F., *see* Abbondanno **142** (1977) 605
Demanins, F., *see* Abbondanno **148** (1978) 577
De Mello, R. W., N. Dag Reppen, R. J. Ringlee and D. D. Wilson, Impact of advanced fuel fusion on electric power transmission **144** (1977) 43
Demierre, C., *see* Charpak **141** (1977) 449
Demierre, C., *see* Breskin **143** (1977) 29
Depommier, P., *see* Kim **143** (1977) 371
Derado, I., *see* Eckardt **143** (1977) 235
Dermois, O.C., *see* Vader **144** (1977) 423
Deruytter, A. J., *see* De Clercq **144** (1977) 593
Deruytter, A. J., *see* Thierens **146** (1977) 330
Desaedeleer, G. G., J. W. Winchester and K. R. Akselsson, Monitoring aerosol elemental composition in particle size fractions for predicting human respiratory uptake **142** (1977) 97
De Unamuno, S., *see* Fett **144** (1977) 109
Devaux, B., *see* Marel **141** (1977) 43
Devaux, B., *see* Holder **148** (1978) 235
Devries, R. M. and D. Elmore, A superconducting quadrupole "collector" with large solid angle for high energy heavy-ion experiments **141** (1977) 369
De Waard, H., *see* Wit **141** (1977) 515
De Witt Huberts, P. K. A., *see* Singhal **148** (1978) 113
Dézsi, I., Zs. Kajcsos and B. Molnár, A new source-preparation technique for positron lifetime measurements in liquids **141** (1977) 401
D'Hondt, P., *see* De Clercq **144** (1977) 593
D'Hondt, P., *see* Thierens **146** (1977) 330
Diamant-Berger, A. M., *see* Marel **141** (1977) 43
Dick, C. E., *see* Sparrow **141** (1977) 283
Dickens, J. K., A simple method for determining absolute disintegration rates for some radionuclides **143** (1977) 315
Didriksson, R., *see* Gönczi **149** (1978) 337
Diiorio, G., and B. W. Wehring, HIAWATHA, a fission-fragment recoil mass spectrometer **147** (1977) 487
Dinter, H. and K. Tesch, Dose and shielding parameters of electron–photon stray radiation from a high-energy electron beam **143** (1977) 349
Dishon, G., *see* Schieber **150** (1978) 71
Dishon, G., *see* Caine **150** (1978) 83
Dittner, P. F., *see* Silva **147** (1977) 371
Dixon, M., A. C. Wright and P. Hutchinson, The smoothing and fast Fourier transformation of experimental X-ray and neutron diffraction data from amorphous materials **143** (1977) 379
Dobrzyński, L., *see* Blinowski **146** (1977) 373
Doe, P. J., *see* Breare **143** (1977) 41
Doe, P. J., *see* Breare **143** (1977) 49
Doe, P. J., *see* Breare **147** (1977) 341
Doe, P. J., *see* Breare **150** (1978) 433
Doering, R. R., *see* Bhowmik **143** (1977) 63
Doering, R. R., *see* Schery **147** (1977) 399
Dolling, G., *see* Scherm **143** (1977) 77
Donald, R. A., *see* Ghidini **147** (1977) 313
Dordrecht, A. van, *see* Leimann **146** (1977) 399
Dore, J. C., *see* Stanton **141** (1977) 259
Dorikens, M., *see* Uyttenhove **141** (1977) 549
Dorikens, M., C. Dauwe, D. Segers and L. Dorikens-Vanpraet, W.A.C.: An alternative method to measure positron annihilation parameters **141** (1977) 561
Dorikens-Vanpraet, L., *see* Uyttenhove **141** (1977) 549
Dorikens-Vanpraet, L., *see* Dorikens **141** (1977) 561
Dorning, J. J., *see* Johnson **145** (1977) 337
Dorth, W., *see* Holder **148** (1978) 235
Doulade, C., *see* Parlier **148** (1978) 483
Dousson, S., *see* Bliman **148** (1978) 213
Doyle, B. L., *see* Willis **142** (1977) 317

DRAKE, D. M., *see* DAVIS **149** (1978) 41
DRAN, J. C., J. P. DURAUD, Y. LANGEVIN and J. C. PETIT, Fission track dating of quartz grains from the Oklo uranium ore deposit **147** (1977) 101
DREVES, W., *see* STEFFENS **143** (1977) 409
DREVES, W., *see* KASSEN **150** (1978) 333
DRIGO, A. V., *see* ARMIGLIATO **149** (1978) 653
DRNDAREVIĆ, S. B., *see* JURIĆ **147** (1977) 251
DROUIN, R., *see* BEAUCHEMIN **149** (1978) 199
DRYAPACHENKO, I. P., V. I. GRANTSEV, V. A. KORNILOV, O. F. NEMETS, V. M. PUGHACH, B. A. RUDENKO, B. G. STRUZHKO and O. M. BILANIUK, An approach to neutron-neutron quasifree scattering using a cyclotron **141** (1977) 153
DUBI, A., *see* HOROWITZ **146** (1977) 455
DUBOIS, R., *see* AMSLER **144** (1977) 401
DÜHMKE, E., *see* BAGGE **147** (1977) 109
DUNHAM, W. R., C. T. WU, R. M. POLICHAR, R. H. SANDS and L. J. HARDING, Added precision in ^{57}Fe Mössbauer spectroscopy **145** (1977) 537
DUNKEL, H., L. ROHRER and S. J. SKORKA, Effect of misalignments of beam optical components **146** (1977) 97
DUNN, P. C., *see* BERTOZZI **141** (1977) 457
DUNNING, K. L., ^{27}Al(p, α_0)^{24}Mg Resonance Profiling of Aluminum in Silicon-on-Sapphire Materials **149** (1978) 317
DURAND, A. et P. TANGUY, VALEURS exactes des coefficients d'aberration d'une lentille quadripolaire representée par le modèle rectangulaire **143** (1977) 561
DURAND, A., *see* TANGUY **148** (1978) 149
DURAUD, J. P., *see* DRAN **147** (1977) 101
DURRANI, S. A., *see* BALCAZÁR-GARCÍA **147** (1977) 31
DUSSEL, G. G., E. E. MAQUEDA and R. P. J. PERAZZO, Field description of inelastic scattering **146** (1977) 325
DUTRANNOIS, J., *see* HASSIB **147** (1977) 163
DUTRANNOIS J., and J. W. N. TUYN, Application of solid state nuclear track detectors for personnel monitoring around high energy accelerators **147** (1977) 177
DWORAKOWSKI, J., J. FILIPECKI, T. KUDERSKA and J. KUKUŁKA, Automatic spectrometer of 2- and 3-quanta annihilation of e^+e^- pairs **144** (1977) 525
DYDAK, F., *see* HOLDER **148** (1978) 235
DYMNIKOV, A. D. and E. A. PERELSHTEIN, Moment method in dynamics of charged particle beams **148** (1978) 567
DYSON, N. A., *see* SIMPSON **146** (1977) 473
DYSON, T. E., *see* NOLEN, JR. **150** (1978) 581

EADES, J., *see* GHIDINI **147** (1977) 313
EARLE, E. D., *see* JAMES **142** (1977) 443
EBERTH, J., *see* ZOBEL **141** (1977) 329
EBERTH, U., *see* ZOBEL **141** (1977) 329
EBINGHAUS, H., *see* STEFFENS **143** (1977) 409
ECKARDT, V., P. SEYBOTH, I. DERADO, H.-J. GEBAUER, A. ODIAN AND K. P. PRETZL, Particle identification in a large streamer chamber with reduced memory time **143** (1977) 235
ECKSTEIN, W., V. A. MOLCHANOV and H. VERBEEK, The Charge State of He and Ne Backscattered from Ni in the Energy Range of 1.5–15 keV **149** (1978) 599
EDDY, N. W., *see* BALIAN **145** (1977) 389
EDER, O. J., B. KUNSCH and G. P. WESTPHAL, A neutron diffractometer using position-sensitive BF_3 counters . . . **141** (1977) 533
EDGINGTON, J. A., *see* AMSLER **144** (1977) 401
EDMISTON, M. D., R. A. WARNER, WM. C. MCHARRIS and W. H. KELLY, A He-jet chopper for measuring half-lives of short-lived nuclei **141** (1977) 315
EDMONDS JR., D. S., *see* FROELICH **143** (1977) 473
EDWARDS, JR. D., Secondary electron amplification in high energy proton accelerators *(Letter to the Editor)* **150** (1978) 339
EDWARDS, D. N., *see* GHIDINI **147** (1977) 313
EDWARDS, M., *see* CONNELL **144** (1977) 453
EDWARDS, M., *see* GHIDINI **147** (1977) 313
EDWARDS, M. and M. M. PRZYBYLSKI, The use of CAMAC in testing a large proportional chamber readout system **147** (1977) 605
EENMAA, J., *see* KNOWLES **147** (1977) 119
EGELHOF, P., *see* STEFFENS **143** (1977) 409
EGELHOF, P., *see* KASSEN **150** (1978) 333
EGGENHUISEN, H. H., *see* ENGELBERTINK **143** (1977) 161
EICHINGER, P., *see* BAYERL **149** (1978) 663
EISBERG, R., M. MAKINO, R. COLE, C. N. WADDELL, M. BAKER, J. J. JARMER, D. M. LEE and P. THOMPSON, Design and performance of an 8 cm thick intrinsic germanium detector telescope **146** (1977) 487
EISELE, F., *see* HOLDER **148** (1978) 235

Eisner, A. M., *see* Morrison . . . **143** (1977) 311

Ekström, C., S. Ingelman and G. Wannberg, An atomic-beam magnetic resonance (ABMR) system for on-line hyperfine structure measurements in short-lived nuclides . . . **148** (1978) 17

Ekström, L. P., *see* Engelbertink . . . **143** (1977) 161

El-Disouki, W., *see* Breare . . . **143** (1977) 41

El-Disouki, W., *see* Breare . . . **143** (1977) 49

Eldred, R. A., *see* Cahill . . . **142** (1977) 259

Elevant, T., Particle diagnosis of a fusion plasma . . . **141** (1977) 603

El Figi, A. R., *see* Marshall . . . **150** (1978) 241

El Goresy, A., *see* Bosch . . . **149** (1978) 665

Elias, J. E., G. Mikenberg, T. Minto and G. A. Weitsch, A novel design for a hodoscope with 1 mm granularity . . **141** (1977) 25

Ellinger, M., K. Starke and M. Janghorbani, A solvent extraction device for use with radioisotopes . . . **141** (1977) 137

Ellison, J. A. and S. T. Ficraux, Statistical Equilibrium Spatial Density in Planar Channeling . . . **149** (1978) 429

Elmore, D., *see* Devries . . . **141** (1977) 369

Eman, B., *see* Kovačevič . . . **148** (1978) 291

Emigh, C. R., *see* Armstrong . . . **145** (1977) 127

Emigh, R. A., D. E. Prull, R. J. Peterson and B. W. Ridley, The zoom lens quadrupole magnets for the University of Colorado energy-loss spectrograph . . . **144** (1977) 87

Endo, K., K.-I. Sasaki, M. Furukawa and H. Yamatera, Construction of a simple fast-slow coincidence system . . **141** (1977) 273

Enge, H., *see* Tsoupas . . . **148** (1978) 93

Enge, H. A. and D. Horn, Performance of an energy–mass spectrograph for heavy ions . . . **145** (1977) 271

Enge, H. A., *see* Salomaa . . . **145** (1977) 279

Enge, W., *see* Jensen . . . **147** (1977) 97

Enge, W., *see* Bagge . . . **147** (1977) 109

Enge, W., Isotopic composition of cosmic ray nuclei . . . **147** (1977) 211

Enge, W., *see* Grabisch . . . **147** (1977) 263

Engel, H., H. Schneider and R. Spitz, A pulse shape selection method to improve the timing properties of a large Ge(Li)-detector . . . **142** (1977) 525

Engel, J. P., *see* Fett . . . **144** (1977) 109

Engelbertink, G. A. P., L. P. Ekström, D. E. C. Scherpenzeel and H. H. Eggenhuisen, Phenomenological restrictions for spin-alignment attenuation factors in heavy-ion induced fusion-evaporation reactions . . . **143** (1977) 161

Engelhardt, G., *see* Steffens . . . **143** (1977) 409

Engelmann, C., *see* Poncet . . . **149** (1978) 461

England, J. B. A. and R. Vlastou, A small medium-pressure gas target system for use with polarized and unpolarized ion beams *(Letter to the Editor)* . . . **147** (1977) 443

Engler, G., *see* Shmid . . . **144** (1977) 601

Engrand, M., *see* Pouthas . . . **145** (1977) 445

Entine, G., *see* Wald . . . **150** (1978) 1

Erb, L. A., *see* Wieman . . . **142** (1977) 573

Ercegovic, D., *see* Wessels . . . **141** (1977) 157

Erickson, R. L., *see* Christensen . . . **149** (1978) 587

Eriksson, L., *see* Cho . . . **148** (1978) 415

Erlenkeuser, H., *see* Jensen . . . **147** (1977) 97

Ermakov, K. N., *see* Bakanov . . . **144** (1977) 99

Ermilova, V. C., L. P. Kotenko and G. I. Merzon, Fluctuations and the most probable values of relativistic charged particle energy loss in thin gas layers . . . **145** (1977) 555

Ernst, J., *see* Hardt . . . **143** (1977) 519

Erwin, J., G. L. Harris, K. Hayes, R. D. Kass, W. Ko, D. E. Pellett and D. Rosener, Microprocessor controlled scanning and measuring of bubble chamber film . . . **148** (1978) 403

Esat, M. T., D. C. Kean and R. H. Spear, The preparation of mercury targets for high resolution particle spectroscopy . . . **141** (1977) 405

Esat, M. T., *see* Spear . . . **147** (1977) 455

Eschbach, H. L., *see* Mitchell . . . **149** (1978) 727

Esposito, B., *see* Ash . . . **148** (1978) 431

Ettling, K. and W. von Witsch, A thin-film scintillator detector for light ions in low-energy nuclear physics . . . **148** (1978) 299

Eube, E., *see* Zobel . . . **141** (1977) 329

Evans, Jr., C. A., *see* Ziegler . . . **149** (1978) 19

Evans, Jr., C. A., *see* Williams . . . **149** (1978) 567

Evans, Jr., C. A., *see* Liau . . . **149** (1978) 623

Evans, K. D., *see* Ambrose . . . **145** (1977) 601

Evenson, P., D. Herrup and I. Lerch, Curious random counting statistics: theory, an actual flight experiment and possible applications for a suggested electrical circuit . . . **147** (1977) 535

Fabjan, C. W., W. Struczinski, W. J. Willis, C. Kourkoumelis, A. J. Lankford and P. Rehak, Iron liquid-argon and uranium liquid-argon calorimeters for hadron energy measurement . . . **141** (1977) 61
Fabjan, C. W., Transition radiation spectra from randomly spaced interfaces . . . **146** (1977) 343
Fadel, M. A. and S. A. Kasim, A devised light absorption method for measuring fast neutron fluences and gamma doses in mixed radiation fields using a cellulose acetate detector . . . **146** (1977) 513
Fahlander, C., L. Hasselgren and J. E. Thun, The reorientation precession technique, REPREC, applied to the measurement of $Q(2_1^+)$ in ^{102}Pd and ^{104}Pd . . . **146** (1977) 329
Fainberg, A., N. Horwitz, I. Linscott and G. Moneti, A frameless, cylindrically shaped, multiwire proportional chamber using charge division readout . . . **141** (1977) 277
Fairley, E. J. and A. R. Spowart, Neutron scintillating glasses, part III. Pulse decay time measurements at room temperature . . . **150** (1978) 159
Fakhouri, B., *see* Lawther . . . **148** (1978) 389
Faleschini, H., *see* Aumann . . . **150** (1978) 233
Falk F., Operation of channel plate multipliers in strong magnetic fields (*Letter to the Editor*) . . . **144** (1977) 355
Fallavier, M., *see* Thomas . . . **149** (1978) 169
Faltin, L., RF fields due to Schottky noise in a coasting particle beam . . . **145** (1977) 261
Faltin, L., Slot-type pick-up and kicker for stochastic beam cooling . . . **148** (1978) 449
Fan, C. Y., *see* Oona . . . **143** (1977) 391
Favier, B., *see* Besset . . . **148** (1978) 129
Fazly, Q., *see* Bauer . . . **148** (1978) 407
Fedoroff, M., *see* Revel . . . **143** (1977) 277
Felawka, L., *see* Amsler . . . **144** (1977) 401
Feld, M. S., *see* Burns . . . **141** (1977) 429
Feldman, L. C., *see* Blood . . . **149** (1978) 225
Feldman, L. C., *see* Zuhr . . . **149** (1978) 349
Feldman, L. C., *see* Kauffman . . . **149** (1978) 619
Felicetti, F., *see* Ash . . . **148** (1978) 431
Ferguson, A. J., *see* Lone . . . **143** (1977) 331
Fernow, R. C., Radiation damage in polarized target materials . . . **148** (1978) 311
Ferrer, J., *see* Menasian . . . **144** (1977) 49
Ferrer, J. C., B. C. Maglich, M. G. Mazarakis, S. C. Menasian, J. E. Nering, C. W. Powell and A. R. Whittemore, Fusion products detection system in migmacell II . . . **144** (1977) 51
Fetisov, V. V., *see* Bogomolov . . . **147** (1977) 45
Fett, E., A. Haatuft, J. M. Olsen, W. Hart, D. Waldren, P. Alibran, B. Degrange, R. Arnold, J. P. Engel and S. de Unamuno, Correction of effects due to reactions on complex nuclei in a sample of hydrogen-like $\bar{p}$ annihilations from a heavy liquid bubble chamber experiment . . . **144** (1977) 109
Fewell, M. P., *see* Spear . . . **147** (1977) 455
Fick, D., *see* Steffens . . . **143** (1977) 409
Fick, D., *see* Kassen . . . **150** (1978) 333
Fidecaro, G., *see* Birsa . . . **146** (1977) 357
Fidecaro, M., *see* Birsa . . . **146** (1977) 357
Fiedler, F., *see* Steffens . . . **143** (1977) 409
Fiedler, G., J. Aschenbach, W. Otto, T. Rautenberg, U. Steinhauser and G. Siegert, Further developments with glass detectors for heavy ions and fission fragments . . . **147** (1977) 35
Field, J. H., F. Lange and W. von Ruden, A high-precision method for calibration of digital time recorders . . . **143** (1977) 227
Filatova, N. A., T. S. Nigmanov, V. P. Pugachevich, V. D. Riabtsov, M. D. Shafranov, E. N. Tsyganov, D. V. Uralsky, A. S. Vodopianov, F. Sauli and M. Atac, Study of drift chamber system for a K–e scattering experiment at the Fermi National Accelerator Laboratory . . . **143** (1977) 17
Filevich, M. Behar and G. García Bermúdez, Gamma gamma polarized directional correlations set-up using a planar Ge(Li) detector as the polarimeter . . . **141** (1977) 521
Filges, D., *see* Kuijpers . . . **144** (1977) 215
Filipecki, J., *see* Dworakowski . . . **144** (1977) 525
Filleux, C. H., *see* Ziegler . . . **149** (1978) 19
Filz, R. C., *see* McNulty . . . **147** (1977) 41
Finch, E. C., M. Asghar, M. Forte, G. Siegert, J. Greif, R. Decker and the 'Lohengrin' Collaboration, The response of a surface barrier detector to mass energy separated fission fragments . . . **142** (1977) 539
Fine, J. and R. Gorden, Jr., Ion and Electron Beam Interaction on Surfaces A Detection Mechanism for Obtaining Visual Ion Beam Images . . . **149** (1978) 679
Fink, D., *see* Biersack . . . **149** (1978) 93
Fink, R. W., *see* Guffey . . . **149** (1978) 489
Finlay, R. W., *see* Carlson . . . **147** (1977) 353
Fischer, B. E., A digital processor for position sensitive detectors . . . **141** (1977) 173
Fišer M., *see* Hnatowicz . . . **150** (1978) 349

Fleischer, R. L., The past and future roles of solid state nuclear track detectors . . . **147** (1977) 1
Fleming, J. S., The manufacture and properties of two dimensional position sensitive orthogonal electrode silicon surface barrier detectors . . . **150** (1978) 417
Fletcher, N. R., *see* Cahill . . . **142** (1977) 307
Flocchini, R. G., *see* Cahill . . . **142** (1977) 259
Flocchini, R. G., *see* Cahill . . . **142** (1977) 307
Foà, L., *see* Fucci . . . **147** (1977) 587
Foell, W. K., *see* Russell . . . **148** (1978) 99
Fonte, G., *see* Schiffrer . . . **146** (1977) 318
Fonti, L., *see* Bacilieri . . . **145** (1977) 255
Ford, N. L., *see* Jeavons . . . **148** (1978) 17
Forsblom, I., *see* Anttila . . . **147** (1977) 501
Forsyth, P. D., *see* Palmer . . . **146** (1977) 328
Forte, M., *see* Finch . . . **142** (1977) 539
Fortuna, G., *see* Morando . . . **146** (1977) 311
Fossati, F., *see* Adani . . . **146** (1977) 332
Fossati, F., *see* Pinelli . . . **150** (1978) 497
Foti, G., *see* Campisano . . . **149** (1978) 229
Foti, G., *see* Campisano . . . **149** (1978) 371
Foti, G., L. Csepregi, E. F. Kennedy, J. W. Mayer, P. P. Pronko and M. D. Rechtin, The Effect of Twins on Dechanneling a Charged Particle Beam . . . **149** (1978) 381
Fouan, J. P., *see* Ballini . . . **146** (1977) 315
Fournier, D., *see* Rohrbach . . . **141** (1977) 229
Fowler, P. H., Ultra heavy cosmic ray nuclei — analysis and results . . . **147** (1977) 183
Fowler, P. H., C. Alexandre, V. M. Clapham, D. L. Henshaw, C. O. Ceallaigh, D. O'Sullivan and A. Thompson, High resolution study of nucleonic cosmic rays with $Z \geqslant 34$ . . . **147** (1977) 195
Fowler, P. H., D. L. Henshaw, C. O. Ceallaigh, D. O'Sullivan and A. Thompson, Measurement of the cosmic ray element abundances between $\simeq 300$ and $\simeq 750$ MeV/N in the region from nickel to krypton using Lexan track detectors . . . **147** (1977) 201
Fox, J. D., *see* Scharfer . . . **146** (1977) 573
Frabetti, P. L., *see* Colla . . . **148** (1978) 489
Fransson, K., *see* Bargholtz . . . **143** (1977) 273
Franz, H., W. Rudolph, H. Ohm, K.-L. Kratz, G. Herrmann, F. M. Nuh, D. R. Slaughter and S. G. Prussin, Delayed-neutron spectroscopy with ^{3}He spectrometers . . . **144** (1977) 253
Fraser, J. S., *see* Lone . . . **143** (1977) 331
Fredrickson, D., *see* Geaga . . . **141** (1977) 263
Freedman, S. J., *see* Robertson . . . **147** (1977) 361
Freeman, J. H., D. J. Chivers and G. A. Gard, Ion beam studies. Part IV: The use of multiply-charged and poly-atomic ions in an implantation accelerator . . . **143** (1977) 99
Freeman, J. H. and D. V. Booker, Ion beam studies, Part V: The computer simulation of composite ion implantation profiles . . . **144** (1977) 175
Freeman, J. H., D. J. Chivers, G. A. Gard and W. Temple, Ion beam studies, part VI: The production of heavy-ion beams . . . **145** (1977) 473
Frehaut, J., *see* Gupta . . . **148** (1978) 77
Freiesleben, H., *see* Vater . . . **147** (1977) 271
Fremion, L., *see* Bliman . . . **148** (1978) 213
French, B., *see* Ghidini . . . **147** (1977) 313
Friant, A., *see* Muller . . . **150** (1978) 97
Friedland, E., Influence of straggling on the analysis of ion implantation profiles using backscattering or nuclear reactions . . . **150** (1978) 301
Friedmann, L., *see* Aumann . . . **150** (1978) 233
Friedrich, L., *see* Bechtold . . . **150** (1978) 401
Fritsch, T., *see* Gütlich . . . **148** (1978) 573
Fröberg, L.-E., *see* Bargholtz . . . **143** (1977) 273
Froelich, H. R., A. S. Thompson, D. S. Edmonds Jr., J. J. Manca, J. W. McGowan, J. C. F. MacDonald, J. Beard and G. Bees, Three-cavity variable energy racetrack microtron with intra-sector beam focusing . . . **143** (1977) 473
Fromm, W. D., *see* Beyer . . . **146** (1977) 419
Frost, G., *see* Barber . . . **145** (1977) 453
Fry, J. R., *see* Ghidini . . . **147** (1977) 313
Frye, Jr., G. M., *see* Zych . . . **144** (1977) 183
Fucci, A., S. R. Amendolia, E. Bertolucci, U. Bottigli, C. Bradaschia, L. Foà, A. Giazotto, M. Giorgi, M. Givoletti, P. Lucardesi, A. Menzione, D. Passuello, M. Quaglia, L. Ristori, L. Rolandi, P. Salvadori, A. Scribano, R. Stanga, A. Stefanini and M. L. Vincelli, A new fast and programmable trigger logic . . . **147** (1977) 587

Fuchi, Y., *see* Osada **144** (1977) 353
Fuchs, B., *see* Adler **146** (1977) 601
Fujimoto, F., *see* Ichinokawa **149** (1978) 577
Fujino, Y., *see* Ozawa **149** (1978) 405
Fujita, Y., H. Matsuda and T. Matsuo, General method for the calculation of particle trajectories in any sector field in a third order approximation **144** (1977) 279
Fukawa, M., *see* Ono **141** (1977) 193
Fukui, K., *see* Young **147** (1977) 255
Fukui, K., *see* Rao **147** (1977) 259
Fukumoto, S., *see* Mori **141** (1977) 383
Fukuzawa, F., *see* Kido **143** (1977) 601
Fulmer, C. B., *see* Saltmarsh **146** (1977) 81
Funke, L., *see* Beckert **146** (1977) 307
Furukawa, M., *see* Endo **141** (1977) 273
Furukawa, S., *see* Ishiwara **149** (1978) 417

Gabathuler, E., *see* Connell **144** (1977) 453
Gabathuler, E., *see* Barber **145** (1977) 453
Gabor, G., *see* Zebelman **141** (1977) 439
Gabriel, T. A. and J. D. Amburgey, Calibration calculations of hadronic cascades induced by high-energy muons in iron/plastic calorimeters **142** (1977) 361
Gabriel, T.A., *see* Jensen **143** (1977) 429
Gabriel, T. A. Uranium liquid-argon calorimeters: A calculational investigation **150** (1978) 145
Gabrielli, I., *see* Calligaris **148** (1978) 323
Gabrielse, G., *see* Berry **149** (1978) 517
Gadioli, E. and E. Gadioli Erba, Pre-equilibrium emission **146** (1977) 265
Gadioli Erba, E., *see* Gadioli **146** (1977) 265
Gaeggeler, H., W. Seidel, G. S. Popeko, V. I. Smirnov, V. G. Subbotin, G. M. Ter-Akopian and L. P. Chelnokov, An on-line system of ionization chambers for the observation of short-lived fissionable nuclei **150** (1978) 173
Gais, P., *see* Abmayr **147** (1977) 79
Galassini, S., *see* de Blasi **150** (1978) 103
Galloway, R. B., *see* Bains **143** (1977) 295
Galonsky, A., *see* Bhowmik **143** (1977) 63
Galper, A., *see* Akimov **147** (1977) 329
Gamo, K., *see* Takai **149** (1978) 457
Gangadharan, P., *see* Lakshmipathy **142** (1977) 577
García Bermúdez, G., *see* Filevich **141** (1977) 521
Gard, G. A., *see* Freeman **143** (1977) 99
Gard, G. A., *see* Freeman **145** (1977) 473
Gasparian, A. O., *see* Alexanian **148** (1978) 251
Gaukler, G., H. Schmidt-Böcking, R. Schuch, R. Schulé, H. J. Specht and I. Tserruya, A position sensitive parallel plate avalanche detector for heavy-ion X-ray coincidence measurements **141** (1977) 115
Gazarik, S. D., *see* Alessi **147** (1977) 305
Geaga, J. V., G. J. Igo, J. B. McClelland, M. A. Nasser, S. Sander, H. Spinka, D. A. Treadway, J. B. Carroll, D. Fredrickson, V. Perez-Mendez and E. T. B. Whipple, A scintillation counter hodoscope for low energy light ions **141** (1977) 263
Gebauer, H.-J., *see* Eckardt **143** (1977) 235
Gebauer, H.-J., Particle identification by measurement of the spark formation time in a system of modified spark chambers **144** (1977) 447
Gebbie, D. W., *see* Bartle **144** (1977) 437
Gehringer, C., *see* Bozek **146** (1977) 327
Gehrke, R. J., R. G. Helmer and R. C. Greenwood, Precise relative γ-ray intensities for calibration of Ge semiconductor detectors **147** (1977) 405
Geissel, H., K. Güttner, S. Hofmann and G. Münzenberg, Energy loss and straggling of alpha particles in thin homogeneous NE-111 scintillator foils **144** (1977) 465
Geller, R., *see* Bliman **148** (1978) 213
Genet, M., *see* Carlier **143** (1977) 613
Genina, L. A., *see* Alexanian **148** (1978) 251
Geraldo, L. P., *see* Mafra **143** (1977) 117
Gerdin, G., *see* Miley **144** (1977) 9
Geretschläger, M., *see* Benka **142** (1977) 83
Geretschläger, M. and H. Paul, A precise light pulser for testing of surface barrier particle spectrometers . . **144** (1977) 171
Geretschläger, M., *see* Benka **149** (1978) 441

GERSCH, U., *see* BECKERT **146** (1977) 307
GEWENIGER, G., *see* WOLDER **148** (1978) 235
GHIDINI, B., A. PALANO, G. ZITO, J. BRÖRING, K. MÜLLER, B. NELLEN, J. EADES, B. FRENCH, K. KNUDSON, L. MANDELLI, F. NAVACH, V. PICCIARELLI, A. WERBROUCK, M. EDWARDS, I. L. SMITH, R. A. DONALD, D. N. EDWARDS, J. R. FRY, A. CANTORE, R. CAR, P. D'ANGELO and M. DI CORATO, The slow proton trigger for the CERN OMEGA spectrometer **147** (1977) 313
GHIRARDI, A., *see* DE LOTTO **143** (1977) 617
GIACOMICH, R., *see* CALLIGARIS **148** (1978) 323
GIAZOTTO, A., *see* FUCCI **147** (1977) 587
GIBERTI, G., *see* COVELLO **146** (1977) 189
GIBSON, D., *see* AMSLER **144** (1977) 401
GIBSON, W. H., *see* KOLLEWE **149** (1978) 411
GILAD, S., J. D. BOWMAN, M. D. COOPER, R. H. HEFFNER, C. M. HOFFMAN, M. A. MOINESTER, J. M. POTTER, F. H. CVERNA, H. W. BAER, P. R. BEVINGTON and M. W. MCNAUGHTON, A position-sensitive, high energy gamma–ray detector **144** (1977) 103
GILBOY, W. B., *see* DAKUBU **150** (1978) 479
GINKEL, E. A., *see* SOURKES **143** (1977) 589
GINOBBI, P., *see* DI LIBERTO **147** (1977) 75
GIORDANA, A., *see* APPENDINO **141** (1977) 565
GIORGI, M., *see* BIRSA **146** (1977) 357
GIORGI, M., *see* FUCCI **147** (1977) 587
GIORGI, M. DE, *see* CENTRO **147** (1977) 599
GIORNI, A., *see* TSAN UNG CHAN **146** (1977) 314
GIPPNER, P., *see* BECKERT **146** (1977) 307
GIRNIUS, R. J., L. W. ANDERSON and E. STAAB, Charge exchange collisions of deuterium in a rubidium vapor target . **143** (1977) 505
GIVOLETTI, M., *see* FUCCI **147** (1977) 587
GLASS, R. W., *see* LEVINS **146** (1977) 517
GLÄSSEL, P., H. RÖSLER, R. MÄNNER and H. J. SPECHT, A position-sensitive multiwire proportional chamber for fission fragments with large solid angle **141** (1977) 111
GLÄSSEL, P., R. C. JARED and L. G. MORETTO, Identification of atomic numbers up to $Z = 60$ by means of ΔE–E telescopes and a computerized method **142** (1977) 569
GLÄSSEL, P., *see* JARED **150** (1978) 597
GLASSER, F., *see* TSAN UNG CHAN **146** (1977) 314
GOGGI, G., R. NARDÒ and B. ROSSINI, A dual integrated gate generator **150** (1978) 603
GOLAND, A.N., *see* GRAND **145** (1977) 49
GOLDEN, J. E., Tailoring electron velocity distributions in phase space (morphodynamics) **144** (1977) 63
GOLDEN, R. L., G. D. BADHWAR, J. L. LACY and J. E. ZIPSE, A magnetic spectrometer for cosmic ray studies **148** (1978) 179
GOLDRING, G., Z. SEGALOV and E. SKURNIK, Beam abberations in a displaced quadrupole triplet charge selector . . . **141** (1977) 307
GOLDSTEIN, W., *see* BRAUN-ELWERT **146** (1977) 121
GOLECKI, I. and C. JACCARD, An Apparatus for Channeling Experiments at Torr Pressures **149** (1978) 689
GÖLLNER, K., *see* RAITH **142** (1977) 39
GOLOVATYUK, V. M., A. B. IVANOV, V. A. NIKITIN, V. D. PESHEKHONOV and YU. V. ZANEVSKY, A low pressure proportional chamber with a high space resolution **145** (1977) 437
GOLUB, R., *see* HERDIN **148** (1978) 353
GOMAA, M. A. and M. A. HAMDAN, Reactor neutron detection using activation and fission fragment track detectors . **146** (1977) 527
GOMAA, M. A., Neutron dosimetric measurements using mica and pyrex **146** (1977) 541
GÖNCZI, L., H. BERGGREN, R. DIDRIKSSON, B. SUNDQVIST and U. LINDH, The use of the $^{14}N(d, p_0)^{15}N$ reaction for studies of nitrogen depth distribution in grains of barley and in samples of chromium steel **149** (1978) 337
GONSIOR, B., *see* RAITH **142** (1977) 39
GONSIOR, B., *see* WILDE **149** (1978) 675
GOOD-ZAMIN, C. J., *see* KELLY **149** (1978) 563
GORDEN, Jr., R., *see* FINE **149** (1978) 679
GORDON, E. F. and R. PITTHAN, The natural line shape of the giant dipole resonance **145** (1977) 569
GORISSE, M., *see* AKIMOV **147** (1977) 329
GORISSE, M., *see* PARLIER **148** (1978) 483
GOR'KOV, V. P., *see* MITROFANOV **144** (1977) 263
GORYACHEV, V. N., *see* BUGORSKY **146** (1977) 367
GOSTELY, J.-J. et E. CARNAL, La méthode des deux oscillateurs pour la mesure du temps mort dans l'instrumentation nucléaire **150** (1978) 459
GOTO, T., *see* MATSUNAMI **149** (1978) 430
GOULD, R. G., P. F. JUDY, J. C. KLOPPING and B. E. BJÄRNGARD, Quantum detection efficiency of a microchannel plate image intensifier **144** (1977) 493
GOULDING, C. A., *see* CAMERON **143** (1977) 399

GOULDING, C. A., *see* SOURKES . . . 143 (1977) 589
GOULDING, C. A., B. T. MURDOCH, M. S. DE JONG, W. T. H. VAN OERS and R. H. MCCAMIS, A liquid helium-4 target for intermediate energy nuclear physics . . . 148 (1978) 11
GOULDING, F.S., Some aspects of detectors and electronics for X-ray fluorescence analysis . . . 142 (1977) 213
GOULDING, F.S. and J.M. JAKLEVIC, XRF analysis – Some sensitivity comparisons between charged-particle and photon excitation . . . 142 (1977) 323
GOURLAN, G., *see* BERNARD . . . 145 (1977) 191
GRABAR, S., *see* COLLA . . . 148 (1978) 489
GRABEŽ, B., Ž. TODOROVIĆ and R. ANTANASIJEVIĆ, Fission of Bi, Pb and Au induced by 0.65, 1.74 and 4.12 GeV alpha particles . . . 147 (1977) 267
GRABISCH, K., R. BEAUJEAN, R. SCHERZER and W. ENGE, Spallation products induced by energetic neutrons in plastic detector material . . . 147 (1977) 263
GRAHAM, M. J., D. F. MITCHELL and J. R. PHILLIPS, A Mössbauer spectrometer system with data processing capability 141 (1977) 131
GRANAT, L., *see* LANNEFORS . . . 142 (1977) 105
GRAND, P. and A. N. GOLAND, An intense neutron source based upon the deuteron-stripping reaction . . . 145 (1977) 49
GRANT, W. A., *see* CHRISTODULIDES . . . 149 (1978) 219
GRANTSEV, V. I., *see* DRYAPACHENKO . . . 141 (1977) 153
GRASS, F., *see* MANTLER-NIEDERSTÄTTER . . . 142 (1977) 463
GREEN, R. E. L., *see* SEAMSTER . . . 145 (1977) 583
GREENIAUS, L. G., *see* BESSET . . . 148 (1978) 129
GREENWOOD, R. C., *see* GEHRKE . . . 147 (1977) 405
GREGG, R., Z. E. SWITKOWSKI and T. A. TOMBRELLO, Application on track detectors to the measurement of sputtering yields (*Letter to the Editor*) . . . 144 (1977) 613
GREIF, J., *see* FINCH . . . 142 (1977) 539
GRIMES, S. M., *see* ALVAR . . . 148 (1978) 303
GRIMM, M., *see* HOLDER . . . 148 (1978) 235
GRION, N., *see* CERNIGOI . . . 144 (1977) 479
GROB, A., *see* PONPON . . . 149 (1978) 647
GROB, J. J., *see* PONPON . . . 149 (1978) 647
GROS, M., *see* AKIMOV . . . 147 (1977) 329
GROSSWENDT, B., W. COLLIN and U. SCHNEIDER, Analysis of photonuclear yield functions . . . 144 (1977) 271
GROZDANOV, M., *see* BONCHEV . . . 147 (1977) 481
GRUEN, D. M., *see* KRAUSS . . . 149 (1978) 547
GRUNDNER, M., H. LENGELER and E. RATHGEBER, Rf contact for superconducting resonators . . . 141 (1977) 57
GRÜNHAGEN, K., *see* SCHÄFER . . . 143 (1977) 489
GRUPEN, C., *see* BRANDT . . . 145 (1977) 593
GUCKELSBERGER, K., Dynamic polarization of protons in 2,3-butanediol doped with Cr(V)-complex and in other materials containing adjacent hydroxyl groups . . . 144 (1977) 93
GUET, C., M. ASGHAR, P. PERRIN and C. SIGNARBIEUX, A method to separate the masses of fission fragments with high kinetic energy . . . 150 (1978) 189
GUFFEY, J. A., H. A. VAN RINSVELT, R. M. SARPER, Z. KARCIOGLU, W. R. ADAMS and R. W. FINK, Comparison of the Elemental Composition of Normal and Diseased Wuman Tissues by PIXE Analysis . . . 149 (1978) 489
GUILLAUMONT, R., *see* CARLIER . . . 143 (1977) 613
GUIVARC'H, A., *see* ZIEGLER . . . 149 (1978) 19
GUNNINK, R., An algorithm for fitting Lorentzian-broadened, K-series X-ray peaks of the heavy elements . . . 143 (1977) 145
GUPTA, D. C. and N. D. SHARMA, On the evaluation of the Debye–Waller factor . . . 143 (1977) 407
GUPTA, S. K., D. LAL and M. N. RAO, An ionisation wedge for simulation of the solar flare spectrum . . . 146 (1977) 497
GUPTA, S. K., J. FREHAUT and R. BOIS, Radiative capture cross section measurements for fast neutrons using a large Gd-loaded liquid scintillator . . . 148 (1978) 77
GUTKNECHT, W. F., *see* WILLIS . . . 142 (1977) 67
GUTKNECHT, W. F., *see* WALTER . . . 142 (1977) 181
GÜTLICH, P., R. LINK, T. FRITSCH, and G. K. WOLF, On-line Mössbauer measurements at low temperatures of ^{83m}Kr implanted into Al . . . 148 (1978) 573
GÜTTNER, K., *see* GEISSEL . . . 144 (1977) 465
GÜTTNER, K., S. HOFMANN, D. MARX, G. MÜNZENBERG and F. NICKEL, Range and range straggling of heavy ions in solids . . . 146 (1977) 413
GYARMATI, E., *see* VÁRNAGY . . . 141 (1977) 489
GYULAI, J., *see* MEZEY . . . 149 (1978) 235
GYULAI, J., *see* TSENG . . . 149 (1978) 615
GYURCSAK, J., *see* UMIASTOWSKI . . . 141 (1977) 347

HAACKE, L. C., J. S. HEWITT and K. G. MCNEILL, A ^{6}Li glass detector system for measuring threshold photoneutron spectra . . . 144 (1977) 507

HAASZ, A. A., *see* DE LEEUW . . . **145** (1977) 119
HAATUFT, A., *see* FETT . . . **144** (1977) 109
HABS, D., *see* JUST . . . **148** (1978) 283
HABS, D., *see* ULFERT . . . **148** (1978) 369
HADJIANTONIOU, A., *see* KATSANOS . . . **149** (1978) 469
HAENSEL, P., *see* DABROWSKI . . . **146** (1977) 317
HAHN, G., Signal and noise response in various configurations of charge sensitive preamplifiers . . . **148** (1978) 591
HAIGHT, R. C., *see* ALVAR . . . **148** (1978) 303
HALBACH, K., *see* ZEBELMAN . . . **141** (1977) 439
HALBACH, K., Reply to the comment by P. W. HAWKES on my paper: A simple class of beam transport systems with optically axisymmetric transfer properties (*Letter to the Editor*) . . . **144** (1977) 339
HALDORSEN, I. R., *see* CARRAZ . . . **148** (1978) 217
HALEY, C. L., *see* HUDSON . . . **141** (1977) 381
HALL, I., *see* PALMER . . . **146** (1977) 328
HAMDAN, M. A., *see* GOMAA . . . **146** (1977) 527
HANCE, N. J., *see* STANTON . . . **141** (1977) 259
HANLEY, P. R., *see* WILLIAMS . . . **149** (1978) 567
HANSEN, H. J. M., *see* BOTTER-JENSEN . . . **144** (1977) 529
HANSON, C. L., *see* BOOTH . . . **145** (1977) 25
HARDING, L. J., *see* DUNHAM . . . **145** (1977) 537
HARDT, A., J. BISPLINGHOFF, J. ERNST, R. LÖHR, H. MACHNER and T. MAYER-KUCKUK, On-line apparatus bandit for half–life determination of short-lived neutron deficient isotopes . . . **143** (1977) 519
HARRIS, G. L., *see* ERWIN . . . **148** (1978) 403
HARRIS, J. M., *see* MATTESON . . . **149** (1978) 163
HARRIS, J. M., *see* BORDERS . . . **149** (1978) 279
HARRISON, K. G., J. R. HARVEY and S. J. BOOT, The calibration of neutron instruments and dosimeters at intermediate energies . . . **148** (1978) 511
HARRISON, R. W., *see* LANG . . . **144** (1977) 589
HART, M., *see* JACOBS . . . **143** (1977) 319
HART, W., *see* FETT . . . **144** (1977) 109
HARVEY, J. R., *see* HARRISON . . . **148** (1978) 511
HASHIMOTO, T., K. KIDO, H. SUGIYAMA, T. SOTOBAYASHI and S. HISAMATSU, Ejection behavior of alpha-recoil atoms from the electrodeposited sources . . . **150** (1978) 509
HASSELGREN, L., *see* FAHLANDER . . . **146** (1977) 329
HASSELMANN, I., W. KOENIG, F. W. RICHTER, U. STEINER, U. WÄTJEN, J. C. BODE and W. OHTA, Application of PIXE to trace element analysis in biological tissues . . . **142** (1977) 163
HASSIB, G. M., J. W. N. TUYN and J. DUTRANNOIS, On the electrochemical etching of neutron-induced tracks in plastics and its application to personnel neutron dosimetry . . . **147** (1977) 163
HASUYAMA, H., *see* WAKUTA . . . **147** (1977) 461
HAUTALA, M., *see* ANTTILA . . . **147** (1977) 501
HAUTALA, M., A. ANTTILA and J. KEINONEN, Relative intensities of gamma-rays from ^{56}Co standard source (*Letter to the Editor*) . . . **150** (1978) 599
HAWKES, P. W., Comment on a paper by K. HALBACH: A simple class of beam transport systems with optically axisymmetric transfer properties (*Letter to the Editor*) . . . **144** (1977) 337
HAYES, K., *see* ERWIN . . . **148** (1978) 403
HAZEWINDUS, N., *see* VAN NIEUWLAND . . . **142** (1977) 339
HECK, D., Ion beam optics of misaligned beam transport elements . . . **143** (1977) 423
HECKER, R., *see* KUIJPERS . . . **144** (1977) 215
HEDEMANN, M. A., Preparation of isotopic sulfur targets . . . **141** (1977) 377
HEFFNER, R. H., *see* BOWMAN . . . **148** (1978) 503
HEFFNER, R. H., *see* GILAD . . . **144** (1977) 103
HEGGIE, J. C. P. and Z. E. SWITKOWSKI, A precise determination of the ^{12}C(p, γ)^{13}N reaction Q-value . . . **147** (1977) 425
HEILAND, W., *see* TAGLAUER . . . **149** (1978) 605
HEINEMEIER, J. and P. TYKESSON, Acceleration of beryllium and boron in a tandem accelerator . . . **141** (1977) 183
HEINEMEIER, J. and P. HVELPLUND, Production of 15–90 keV negative heavy ions by charge exchange with Mg vapour **148** (1978) 65
HEINEMEIER, J. and P. HVELPLUND, Production of 10–80 keV negative heavy ions by charge exchange in Na vapour . **148** (1978) 425
HEINEMEIER, J., *see* SIGMUND . . . **150** (1978) 221
HEITZ, Ch., M. KWADOW, M. and D. TENORIO, Surface Analysis by Argon Ion Induced X-Ray Fluorescence **149** (1978) 483
HELBIG, H. F., P. J. ADELMANN, A. C. MILLER and A. W. CZANDERNA, Displacement of Ion Scattering Peaks from Positions Predicted by Binary Scattering . . . **149** (1978) 581
HELD, J. L., *see* BOOTH . . . **145** (1977) 25
HELLER, L. I., *see* SHROY . . . **149** (1978) 313

HELLSTEN, T., On the balance and separation processes in rotating plasmas . . . 145 (1977) 425
HELMER, R. G., *see* GEHRKE . . . 147 (1977) 405
HEMMI, Y., *see* IMANISHI . . . 150 (1978) 131
HENKE, R. P. and E. V. BENTON, Isotope resolution of the iron peak . . . 142 (1977) 521
HENKELMAN, R. M., *see* LANG . . . 144 (1977) 589
HENKELMANN, R., *see* BIERSACK . . . 149 (1978) 93
HENRICHS, C., *see* SCHARFER . . . 146 (1977) 573
HENSHAW, D. L., *see* FOWLER . . . 147 (1977) 195
HENSHAW, D. L., *see* FOWLER . . . 147 (1977) 201
HENSLEY, D. C., *see* STOKSTAD . . . 141 (1977) 499
HENTSCHEL, E., *see* BECKERT . . . 146 (1977) 307
HEPP, V., *see* HOLDER . . . 148 (1978) 235
HERDIN, R., A. STEYERL, A. R. TAYLOR, J. M. PENDLEBURY and R. GOLUB, Experiment on the efficient polarization of ultracold neutrons . . . 148 (1978) 353
HERRMANN, G., *see* FRANZ . . . 144 (1977) 253
HERRUP, D., *see* EVENSON . . . 147 (1977) 535
HERSHBERGER, R. L., *see* BRAUN-ELWERT . . . 146 (1977) 121
HERZING, R., *see* KUIJPERS . . . 144 (1977) 215
HERZOG, G. F., *see* KUGEL . . . 142 (1977) 301
HERZOG, R., *see* ANDERSON . . . 147 (1977) 611
HESS, R., *see* BESSET . . . 148 (1978) 129
HEWITT, J. S., *see* HAACKE . . . 144 (1977) 507
HEYDE, W., *see* HOLDER . . . 148 (1978) 235
HIEBERT, R. D., H. A. THIESSEN and A. W. OBST, Photomultiplier tube base for high pulsed anode currents . . . 142 (1977) 467
HIGASHI, S., K. HONDA, S. OZAKI, T. TAKAHASHI, Y. TERAMOTO, T. KITAMURA, K. MITSUI, S. MIYAKE, Y. MURAKI, I. NAKAMURA, Y. OHASHI, A. OKADA, S. IIDA, Y. KAMIYA, Y. KAWASHIMA, H. SHIBATA, K. KOBAYAKAWA, S. MIKAMO and Y. MINORIKAWA, The trigger system of MUTRON, a cosmic ray magnetic spectrometer . . . 150 (1978) 387
HIGBIE, P. R. and W. R. MOOMEY, Pitch angle measurements from satellites using particle telescopes with multiple view directions . . . 146 (1977) 439
HILDEBRAND, D., G. REITZ and H. BÜCKER, Some aspects of the etching behavior of cellulose nitrate as track detector 147 (1977) 19
HILL, D., R. C. MILLER, M. KRUMPOLC and J. ROČEK, A new Cr^{v} doping agent for polarized targets *(Letter to the Editor)* . . . 150 (1978) 331
HILL, K. W., *see* KNUDSON . . . 149 (1978) 507
HILL, M. W., *see* MANGELSON . . . 142 (1977) 133
HILLER, W. J., *see* SCHMIDT-OTT . . . 141 (1977) 553
HIRABAYASHI, M., *see* OZAWA . . . 149 (1978) 405
HIRAMATSU, N., *see* YONEDA . . . 150 (1978) 353
HIRAYAMA, H. and T. NAKAMURA, Integral experiment of photonuclear cross sections of C, Mn, Fe, In and Au in the giant resonance region . . . 147 (1977) 563
HIRCH, A., *see* BERTOZZI . . . 141 (1977) 457
HIRST, P. M., *see* MCMILLAN . . . 149 (1978) 83
HIRVONEN, J. K. and W. H. LUCKE, Nuclear Reaction Analysis of ^{16}O Concentration Profiles a High-Resolution Magnetic Spectrometer . . . 149 (1978) 295
HISAMATSU, S., *see* HISHIMOTO . . . 150 (1978) 509
HISHIDA, M., *see* KUBOTA . . . 150 (1978) 561
HNATOWICZ, V., Dependence of efficiency curve for Ge(Li) detectors on detector shape . . . 142 (1977) 403
HNATOWICZ, V. and M. FIŠER, New method for efficiency calibration of Ge(Li) detectors *(Letter to the Editor)* . . . 150 (1978) 349
HO, R., Advanced fuel fusion application to manned space propulsion . . . 144 (1977) 69
HOEKSEMA, G., *see* WIT . . . 141 (1977) 515
HOEKSTRA, C., *see* KETEL . . . 146 (1977) 335
HOFER, H., *see* ANDERHUB . . . 142 (1977) 595
HOFER, W. O., *see* ZIEGLER . . . 149 (1978) 19
HOFER, W. O. and F. THUM, A Simple Axially-Symmetric Quadrupole SIMS Spectrometer . . . 149 (1978) 535
HÖFERT, M., *see* PSZONA . . . 146 (1977) 509
HOFFMAN, C. M., *see* GILAD . . . 144 (1977) 103
HOFMANN, S., *see* GEISSEL . . . 144 (1977) 465
HOFMANN, S., *see* GÜTTNER . . . 146 (1977) 413
HOFMANN, W., H. KELLER and W. KÜNDIG, The evaluation of ^{57}Fe and ^{119}Sn Mössbauer spectra . . . 143 (1977) 609
HOFTIEZER, J. H., G. S. MUTCHLER, J. A. BUCHANAN, W. P. MADIGAN and G. C. PHILIPS, A binary encoded position-sensitive scintillation hodoscope . . . 147 (1977) 465
HOLCOMB, L. and A. L. SESSOMS, A CAMAC/NIM system for data acquisition and monitoring of drift chambers (*Letter to the Editor*) . . . 144 (1977) 597

HOLDER, M., J. KNOBLOCH, A. LACOURT, G. LAVERRIÈRE, J. MAY, H. PAAR, P. PALAZZI, F. RANJARD, P. SCHILLY, D. SCHLATTER, J. STEINBERGER, H. SUTER, H. WAHL, E. G. H. WILLIAMS, F. EISELE, G. GEWENIGER, K. KLEINKNECHT, D. POLLMANN, G. SPAHN, H. J. WILLUTZKI, W. DORTH, F. DYDAK, V. HEPP, W. HEYDE, K. TITTEL, M. VYSOČANSKÝ, J. WOTSCHACK, P. BLOCH, S. BRÉHIN, B. DEVAUX, M. GRIMM, J. MAILLARD, Y. MALBEQUI, G. MAREL, B. PEYAUD, J. RANDER, A. SAVOY-NAVARRO, G. TARTE, R. TURLAY and F. L. NAVARRIA, A detector for high-energy neutrino interactions . . . **148** (1978) 235
HOLLAS, C. L., *see* BARTLE . . . **144** (1977) 437
HOLLER, D., *see* BEDNAR . . . **146** (1977) 597
HOLM, U., *see* BECKMANN . . . **141** (1977) 525
HOLM, U., *see* BRÜCKMANN . . . **146** (1977) 339
HOLT, R. J., J. R. SPECHT, H. E. JACKSON and R. M. LASZEWSKI, Polarimeter for threshold photoneutron spectroscopy . . . **141** (1977) 125
HOLZER, A., *see* SCHIEBER . . . **150** (1978) 71
HOLZER, A., *see* CAINE . . . **150** (1978) 83
HONDA, K., *see* HIGASHI . . . **150** (1978) 387
HOOD, J. T., *see* WESTERBERG . . . **145** (1977) 295
HOONHOUT, D., C. B. W. KERKDIJK, R. S. BHATTACHARYA, H. H. KERSTEN, W. C. TURKENBURG and F. W. SARIS Surface Layer Analysis by MEIS Using a Solid State Detector . . . **149** (1978) 355
HORA, H., Advanced fuel nuclear reaction feasibility using laser compression I . . . **144** (1977) 17
HORA, H., *see* CASTILLO . . . **144** (1977) 27
HORA, H., E. L. KANE and J. L. HUGHES, Limitations for the generation of GeV ions from laser irradiated targets *(Letter to the Editor)* . . . **150** (1978) 589
HORN, D., *see* ENGE . . . **145** (1977) 271
HOROWITZ, Y. S. and A. DUBI, Comment on the use of thermoluminescence dosimeters as thermal neutron detectors *(Letter to the Editor)* . . . **146** (1977) 455
HORWITZ, N., *see* FAINBERG . . . **141** (1977) 277
HOSHI, Y., *see* IMANISHI . . . **150** (1978) 131
HOSSFELD, F., An improvement of the correlation time-of-flight method by source pulsing . . . **148** (1978) 381
HÖTZL, H. and R. WINKLER, Large area gridded ionisation chamber and electrostatic precipitator. Application to low-level alphaspectrometry of environmental air samples . . . **150** (1978) 177
HOURST, J. B., M. ROCHE and J. MORIN, 160 kV, 200 mA dc accelerator for high 14 MeV neutron yield . . . **145** (1977) 19
HOWELL, R. H., A highly energy-selective activation detector for pulsed fusion neutron sources . . . **148** (1978) 39
HOWES, M. J., *see* PALMSTRÖM . . . **150** (1978) 289
HSU, P.-C., *see* WENG . . . **145** (1977) 433
HSU, P. C. and P. S. WENG, In response to "Low exposure rate dependence of $CaSO_4$:Dy TLDs" *(Letter to the Editor)* . . . **147** (1977) 453
HUACK, R., *see* BRAUNECKER . . . **150** (1978) 321
HUBER, A. M., G. MORILLOT, N. T. LINH, J. L. DEBRUN and M. VALLADON, Quantitative Analysis of Oxygen in Thin Epitaxial Layers of GaAs by SIMS . . . **149** (1978) 543
HUBER, J., *see* BRAUN-ELWERT . . . **146** (1977) 121
HUBLER, G. K., J. COMAS and L. PEW Profiles of Ion-Implanted Be in GaAs. By Means of (p, α) Nuclear Reaction and SIMS Methods . . . **149** (1978) 635
HUBRICHT, G., B. KNAF, G. PRESSER and J. STÄHLER, Efficiency calibration of a Si(Li) detector at photon energies below 5 keV (*Letter to the Editor*) . . . **144** (1977) 359
HUCK, A., *see* BAUMANN . . . **146** (1977) 308
HUDDLESTON, J., *see* PIERCE . . . **144** (1977) 231
HUDDLESTON, J., *see* MCMILLAN . . . **149** (1978) 83
HUDSON, F. D., G. A. PALMER, C. L. HALEY, M. L. MALLORY, Cyclotron heavy ion beam intensity enhancement by using an easily ionized support gas in the ion source . . . **141** (1977) 381
HUDSON, G. M., H. C. KAUFMANN, J. W. NELSON and W. J. COURTNEY, Beryllium Analysis of simulated Aerosol samples by Proton Scattering . . . **149** (1978) 307
HUFSCHMIDT, M., *see* MÖLLER . . . **149** (1978) 73
HUGGETT, R. W., *see* CHESHIRE . . . **141** (1977) 219
HUGHES, J. L., *see* HORA . . . **150** (1978) 589
HUNGER, W., *see* BAGGE . . . **147** (1977) 109
HUNTER, J. B., *see* JARED . . . **150** (1978) 597
HUNYADI, I., *see* SOMOGYI . . . **147** (1977) 287
HUSAIN, S. A., *see* IRFAN . . . **143** (1977) 177
HUSIMI, K., *see* OHKAWA . . . **142** (1977) 563
HUSIMI, K., *see* OSADA . . . **144** (1977) 353
HUSSONNOIS, M., *see* CARLIER . . . **143** (1977) 613
HUSTER, E., W. NEUMANN and J. SCHMAND, Spontaneous resistance variations of Au and Au–20% Pd coated source backings . . . **142** (1977) 353

HUTCHEON, D. A., *see* JAMES **142** (1977) 443
HUTCHINSON, P., *see* DIXON **143** (1977) 379
HUTTEL, E., *see* KRAUSE **143** (1977) 467
HVELPLUND, P., *see* HEINEMEIER **148** (1978) 65
HVELPLUND, P., *see* HEINEMEIER **148** (1978) 425
HVELPLUND, P., *see* SIGMUND **150** (1978) 221
HYNES, M. V., *see* BERTOZZI **141** (1977) 457

IBRAHIM, E. M. H., A. M. SAYED and R. I. DAWOOD, Gamma dose measurements by optical absorption, electrical conductivity and mechanical hardness **150** (1978) 555
ICHINOKAWA, T., T. KAWAMURA, H. NAKAMURA, F. FUJIMOTO and K. KOMAKI, Angular Variations of Backscattering Yield with 20 keV Proton Bombardment **149** (1978) 577
IIDA, S., *see* HIGASHI **150** (1978) 387
IGNATOVICH, V. K. and G. I. TEREKHOV, Stationary and nonstationary flow of ultracold neutrons along a guide tube in the frame of the diffusion approximation **148** (1978) 585
IGO, G. J., *see* GEAGA **141** (1977) 263
ILLARI, G., M. LATTUADA, E. MODICA, D. VINCIGUERRA and S. BARBARINO, Etching behaviour of Makrofol KG in KOH solution **143** (1977) 605
IMANISHI, A., S. KATO, K. SHINO, T. TOSHIOKA, K. UKAI, K. WATANABE, M. DAIGO, Y. HEMMI, R. KIKUCHI, M. MINOWA, K. MIYAKE, T. NAKAMURA, A. NODA, M. ONO, Y. SUZUKI, M. YOSHIOKA, M. CHIBA, K. SUGANO, T. SHIMOMURA, T. SHINOHARA and Y. HOSHI, A large acceptance spectrometer using wire chambers **150** (1978) 131
IMMÉ, G., *see* BAERI **149** (1978) 431
INGELMAN, S., *see* EKSTRÖM **148** (1978) 13
INGERSOLL, D. T., *see* JOHNSON **145** (1977) 337
INGERSOLL, D. T. and B. W. WEHRING, Gamma-ray pulse-height response of an NE-213 scintillation detector . . . **147** (1977) 551
INMAN, D. J., *see* LEVINS **146** (1977) 517
INOUE, H., *see* KOYAMA **148** (1978) 257
INUISHI, Y., *see* TAGUCHI **150** (1978) 43
INYAKIN, A. V., *see* DAVYDOV **145** (1977) 267
IRFAN, M. and S. A. HUSAIN, Dead-time corrections on long-interval measurements of short-lived activities **143** (1977) 177
ISCHENKO, G., *see* MÜLLER **149** (1978) 239
ISELIN, C., *see* BROWN **141** (1977) 393
ISHII, K., *see* KAJI **142** (1977) 21
ISHII, K., *see* SHIOKAWA **142** (1977) 199
ISHII, K., M. VALLADON and J-L. DEBRUN, The average stopping power method for accurate charged particle activation analysis **150** (1978) 213
ISHIKAWA, H., *see* TAKIUE **148** (1978) 157
ISHIWARA, H., M. NAGATOMO and S. FURUKAWA, A Structure Modeling of Metal–Silicide Layers by Using Axial and Planar Channeling Techniques **149** (1978) 417
ITO, R., *see* TABATA **146** (1977) 435
ITOH, N., *see* MATSUNAMI **149** (1978) 430
IVANOV, A. B., *see* GOLOVATYUK **145** (1977) 437
IVANOV, N. S., A. P. KABACHENKO, I. V. KUZNETSOV and N. I. TARANTIN, A gas-discharge ion source for an on-line electromagnetic mass separator at a heavy ion accelerator. Part I. Design and efficiency **147** (1977) 333
IVANOV, V. A., *see* ALEXANIAN **148** (1978) 251
IVKOVIĆ, V., *see* MARTINČIČ **147** (1977) 513
IWAŃCZYK, J., *see* DABROWSKI **150** (1978) 25
IZAWA, G., *see* SHIOKAWA **142** (1977) 199

JACCARD, C., *see* GOLECKI **149** (1978) 689
JACCARD, S., *see* AMSLER **144** (1977) 401
JACHIM, M., *see* BEYER **148** (1978) 543
JACKSON, H. E., *see* HOLT **141** (1977) 125
JACOBS, E., *see* DE CLERCQ **144** (1977) 593
JACOBS, E., *see* THIERENS **146** (1977) 330
JACOBS, L. and M. HART, An X-ray topographic study of large crystals for a bent-crystal gamma diffractometer . . . **143** (1977) 319
JACOBSON, J. S., *see* SHROY **149** (1978) 313
JAKLEVIC, J. M., *see* GOULDING **142** (1977) 323
JAMES, A. N., J. M. CAMERON, D. A. HUTCHEON, P. KITCHING, W. J. MCDONALD, C. A. MILLER and E. D. EARLE, Scintillation response of Pilot U to 100 MeV neutrons **142** (1977) 443
JANGHORBANI, M., *see* ELLINGER **141** (1977) 137
JANSSON, B., *see* BIAŁKOWSKI **141** (1977) 587
JARED, R. C., *see* GLÄSSEL **142** (1977) 569

JARED, R. C., P. GLÄSSEL, J. B. HUNTER and L. G. MORETTO, A simple position-sensitive parellel-plate avalanche detector with 2-dimensional readout *(Letter to the Editor)* . . . **150** (1978) 597
JARMER, J. J., *see* EISBERG . . . **146** (1977) 487
JASIAK, J., *see* PIESCH . . . **147** (1977) 57
JEAVONS, A. P., N. L. FORD, B. LINDBERG and R. SACHOT, A new position-sensitive detector for thermal and epithermal neutrons . . . **148** (1978) 29
JEFFERIES, D. K., *see* CLAMPITT . . . **149** (1978) 759
JENNY, J., *see* ROHRBACH . . . **141** (1977) 229
JENSEN, J. M., W. ENGE, H. ERLENKEUSER and H. WILLKOMM, Age determination of sediments by ^{210}Pb using a plastic detector technique . . . **147** (1977) 97
JENSEN, T., J. D. AMBYRGEY and T. A. GABRIEL, Hadronic- and electromagnetic-cascade discrimination in a thin lead-argon calorimeter . . . **143** (1977) 429
JIROVA, L. A., *see* ALEXANIAN . . . **148** (1978) 251
JOHANSSON, T. B., *see* LANNEFORS . . . **142** (1977) 105
JOHNSON, E., *see* CHADDERTON . . . **149** (1978) 639
JOHNSON, P. B. and T. R. ARMSTRONG, In-situ detection of radiation blistering and dynamic deuterium depth profiling during D^+ bombardment of solids . . . **148** (1978) 85
JOHNSON, P. N., *see* BARBER . . . **145** (1977) 453
JOHNSON, R. H., D. T. INGERSOLL, B. W. WEHRING and J. J. DORNING, NE-213 neutron spectrometry system for measurements from 1.0 to 20 MeV . . . **145** (1977) 337
JOHNSON, R. R., *see* LANG . . . **144** (1977) 589
JOLAS, A., *see* BERNARD . . . **145** (1977) 191
JONES, C. M., *see* MOAK . . . **150** (1978) 529
JONES, G. D., A. KOGAN, P. R. G. LORNIE, H. G. PRICE, P. J. TWIN and R. WADSWORTH, High spin states in some Zn isotopes . . . **146** (1977) 313
JONES, K. W., *see* SLATKIN . . . **142** (1977) 589
JONES, K. W., *see* SHROY . . . **149** (1978) 313
JONES, L. W., The separation between hadrons and electromagnetic particles using an ionization calorimeter *(Letter to the Editor)* . . . **144** (1977) 341
JONES, W. V., *see* CHESHIRE . . . **141** (1977) 219
JORCH, H. H. and J. L. CAMPBELL, On the analytic fitting of full energy peaks from Ge(Li) and Si(Li) photon detectors **143** (1977) 551
JOYE, A. M. R., *see* SPEAR . . . **147** (1977) 455
JUDY, P. F., *see* GOULD . . . **144** (1977) 493
JUHÁSZ, S., *see* VÁRNAGY . . . **141** (1977) 489
JUH TZENG LUE, An automatic tracking nuclear magnetic resonance gaussmeter . . . **147** (1977) 595
JUNGHANS, G., K. BANGERT, U. E. P. BERG, R. STOCK and K. WIENHARD, On-line acquistion of *N*-fold coincidences at a pulsed accelerator . . . **144** (1977) 293
JURIĆ, M., *see* WAHEED . . . **147** (1977) 239
JURIĆ, M., *see* WAHEED . . . **147** (1977) 245
JURIĆ, M. K. and S. B. DRNDAREVIĆ, Hypernuclei in some hammer-like events recorded in a photonuclear emulsion irradiated with stopping K^- mesons . . . **147** (1977) 251
JUSHKEVIČ, J., *see* BEYER . . . **148** (1978) 543
JUST, M., D. HABS, V. METAG and H. J. SPECHT, A position sensitive parallel plate avalanche detector (PPAD) for fission fragments . . . **148** (1978) 283
JUSTICE, D., *see* WESSELS . . . **141** (1977) 157

KABACHENKO, A. P., *see* IVANOV . . . **147** (1977) 333
KABACHENKO, A. P., I. V. KUZNETSOV, LEE GEN SOO and N. I. TARANTIN, A gas discharge ion source for an on-line electromagnetic mass separator at a heavy ion accelerator. Part II. The rate of performance . . . **147** (1977) 337
KACHANOV, V. A., *see* DAVYDOV . . . **145** (1977) 267
KAFALENOS, V. P., *see* ROBERTS . . . **147** (1977) 83
KAFFNELL, N., *see* KURCEWICZ . . . **146** (1977) 613
KAHN, R., *see* CHARPAK . . . **141** (1977) 449
KAI, K., *see* SUZUKI . . . **147** (1977) 519
KAJCSOS, ZS., *see* DÉZSI . . . **141** (1977) 401
KAJI, H., T. SHIOKAWA, K. ISHII, S. MORITA, M. KAMIYA, K. SERA and H. TAWARA, Application of proton-induced X-ray emission to quantitative trace element analysis . . . **142** (1977) 21
KAJI, H., *see* SHIOKAWA . . . **142** (1977) 199
KALINKIN, L., *see* AKIMOV . . . **147** (1977) 329
KÄLL, L., *see* BÄRS . . . **143** (1977) 199
KAMBOJ, B. K. M. G. SHAHANI, U. V. PHADNIS and D. SHARMA, A fast neutron detector with linear energy response **148** (1978) 57
KAMBUROV, CH., I. VANVOC and S. AVRAMOV, 4π scintillation system for low beta-activity counting . . . **143** (1977) 537
KAMENSKI, A. D., *see* ALEXANIAN . . . **148** (1978) 251

KAMIYA, M., *see* KAJI **142** (1977) 21
KAMIYA, Y., *see* HIGASHI **150** (1978) 387
KAMKOWSKI, E. A., *see* ZIEGLER **149** (1978) 19
KANDA, K., K. KOBAYASHI, S. OKAMOTO and T. SHIBATA, Thermal neutron standard field with a Maxwellian distribution using the KUR heavy water facility **148** (1978) 535
KANE, E. L., *see* CASTILLO **144** (1977) 27
KANE, E. L., *see* HORA **150** (1978) 589
KANE, P. P., G. BASAVARAJU and K. M. VARIER, Gamma ray attenuation measurements **147** (1977) 507
KANOMATA, I., *see* TAYA **150** (1978) 165
KARBAN, O., C. O. BLYTH, Y.-W. LUI, S. ROMAN, Recoil deuteron polarimeter for a polarized ^{3}He beam **141** (1977) 387
KARCIOGLU, Z., *see* GUFFEY **149** (1978) 489
KASAGI, J., N. KISHIDA and H. OHNUMA, Three-Ge(Li) Compton polarimeter with kinematic selection **144** (1977) 201
KASIM, S. A., *see* FADEL **146** (1977) 513
KASS, R. D., *see* ERWIN **148** (1978) 403
KASSEN, D., *see* STEFFENS **143** (1977) 409
KASSEN, D., P. EGELHOF, E. STEFFENS, W. WEISS, P. ZUPRANSKI, D. FICK and W. DREVES, Production and calibration of a tensor polarized ^{6}Li-beam *(Letter to the Editor)* **150** (1978) 333
KATO, H., R. ONO and R. KATO, Absorption of high energy electrons in liquid medium **145** (1977) 525
KATO, H., R. ONO and R. KATO, Absorption of high energy electrons in liquid nitrogen **145** (1977) 529
KATO, R., *see* H. KATO **145** (1977) 525
KATO, R., *see* H. KATO **145** (1977) 529
KATO, S., *see* IMANISHI **150** (1978) 131
KATSANOS, A. and A. HADJIANTONIOU, Sensitivity of the External Beam PIXE Elemental Analysis Method **149** (1978) 469
KAUFFMAN, R. L., L. C. FELDMAN and R. P. H. CHANG, Use of Ion Beam Techniques to Characterize Thin Plasma Grown GaAs and GaAlAs Oxide Films **149** (1978) 619
KAUFFMAN, R. L., *see* ZUHR **149** (1978) 349
KAUFMANN, E. N., *see* VIANDEN **149** (1978) 393
KAUFMANN, H. C., *see* ORSINI **142** (1977) 91
KAUFMANN, H. C., K. R. AKSELSSON and W. J. COURTNEY, REX – A computer programme for PIXE analysis **142** (1977) 251
KAUFMANN, H. C., *see* CAHILL **142** (1977) 307
KAUFMANN, H. C., *see* HUDSON **149** (1978) 307
KAUTTO, A. M. T., *see* BÄRS **150** (1978) 595
KAWAMURA, T., *see* ICHINOKAWA **149** (1978) 577
KAWASHIMA, Y., *see* HIGASHI **150** (1978) 387
KAYUMOV, F. F., *see* ALEXANIAN **148** (1978) 251
KEAN, D. C., *see* ESAT **141** (1977) 405
KEAN, D. C., *see* SPEAR **147** (1977) 455
KEDDY, R. J., *see* SELLSCHOP **149** (1978) 321
KEELER, R., *see* AMSLER **144** (1977) 401
KEINER, P., *see* ARNOLD **143** (1977) 457
KEINONEN, J., *see* RIIHONEN **144** (1977) 323
KEINONEN, J., *see* ANTTILA **147** (1977) 501
KEINONEN, J., *see* HAUTALA **150** (1978) 599
KELLER, H., *see* HOFMANN **143** (1977) 609
KELLER, J., *see* LURIO **149** (1978) 387
KELLY, R., An Attempt to Understand Preferential Sputtering **149** (1978) 553
KELLY, R., C. J. GOODZAMIN, M. T. SHEHATA and D. B. SQUIRES, An Attempt to Understand Secondary Photon Emission **149** (1978) 563
KELLY, W. H., *see* EDMISTON **141** (1977) 315
KELSEY, C. A., *see* CHENEVERT **145** (1977) 149
KEMP, K. and F. PALMGREN JENSEN, PIXE analysis of urban acrosols on heavy-loaded membrane filters **142** (1977) 101
KEMPER, K. W., *see* PUIGH **142** (1977) 531
KENIGSBERG, A., J. LEON and N. H. SHAFRIR, Parameter analysis of an electrostatic particle guide using radioactive recoil ions **148** (1978) 605
KENNEDY, C. N., A. W. KEY, T. S. YOON and P. D. ZEMANY, A new technique for selecting the reaction $\pi^+ p \rightarrow n\pi^+\pi^+\pi^+\pi^-$ from the background **145** (1977) 417
KENNEDY, E. F., *see* FOTI **149** (1978) 381
KENNEY, E. S., *see* RAY **144** (1977) 579
KENNY, M. J., *see* BIRD **149** (1978) 336
KENYON, R. G., *see* WALLICK **146** (1977) 403
KEREK, A., J. KIHLGREN, TH. LINDBLAD, C. POMAR, J. SZTARKIER, W. WALUS, Ö. SKEPPSTEDT, J. BIALKOWSKI, J. KOWNACKI, Z. SUJKOWSKI and A. ZGLIŃSKI, Multi-detector arrangements for on-line measurements of γ-ray and neutron multiplicities **150** (1978) 483

KERKDIJK, C. B. W., *see* HOONHOUT **149** (1978) 355
KERSTEN, H. H., *see* HOONHOUT **149** (1978) 355
KESSEL, Q. C., *see* MOAK **150** (1978) 529
KETEL, T. J., C. HOEKSTRA, J. RETHMEIER and H. VERHEUL, Timing experiments and burst suppression at the V.U. AVF-cyclotron **146** (1977) 335
KEY, A. W., *see* KENNEDY **145** (1977) 417
KHACHATURIAN, M. N., *see* ALEXANIAN **148** (1978) 251
KHADDURI, I. Y., A neutron radiography facility on the IRT-2000 reactor **147** (1977) 115
KHADDURI, I. Y. and I. K. AL-HADDAD, A neutron dosimeter using cellulose nitrate film **147** (1977) 153
KHAN, H. A., R. A. AKBER, K. M. BUKHARI and A. SADDARUDIN, Radon and thoron dosimetry by plastic solid state nuclear track detectors **147** (1977) 125
KHAN, H. A., *see* MUBARAKMAND **147** (1977) 279
KHAN, Md. R. and D. CRUMPTON, A simple and accurate dead time measuring system for a Si(Li) X-ray-spectrometer system (*Letter to the Editor*) **144** (1977) 351
KHERUVIMOV, A. N., *see* APALIN **143** (1977) 71
KHRULIOVA, L. S., *see* BOGOMOLOV **147** (1977) 45
KICHIMI, H., *see* ONO **141** (1977) 139
KIDO, K., *see* HISHIMOTO **150** (1978) 509
KIDO, Y., M. ASARI, A. NAKATA and F. FUKUZAWA, Equilibrium charge state distributions of ^{14}N and ^{20}Ne ions emerging from solids **143** (1977) 601
KIHLGREN, J., *see* KEREK **150** (1978) 479
KIKUCHI, K., *see* MORI **141** (1977) 383
KIKUCHI, R., *see* IMANISHI **150** (1978) 131
KIM, H. J., *see* BENDJABALLAH **146** (1977) 316
KIM, J. and J. H. WHEALTON, Beam intensity distributions in neutral beam injection systems **141** (1977) 187
KIM, J., Neutron sources using D–T mixed beams driven into solid target **145** (1977) 9
KIM, J. C., P. DEPOMMIER, W. DEL BIANCO and S. KUNDU, Precision measurement of the energy of the second excited state in ^{6}Li **143** (1977) 371
KIMURA, K., *see* KYOSHIMA **147** (1977) 547
KINBARA, S., Increase in speed of Wilkinson-type ADC and improvement of differential non-linearity **143** (1977) 267
KIRILLOV-UGRYUMOV, V., *see* AKIMOV **147** (1977) 329
KISHIDA, N., *see* KASAGI **144** (1977) 201
KITAMURA, T., *see* HIGASHI **150** (1978) 387
KITCHING, J. E., *see* AZUELOS **142** (1977) 491
KITCHING, P., *see* JAMES **142** (1977) 443
KITCHING, P., *see* CAMERON **143** (1977) 399
KLAPDOR, H. V., *see* MÖLLER **142** (1977) 447
KLEIN, S. S., *see* VAN HEUSDEN **141** (1977) 413
KLEINKNECHT, K., *see* HOLDER **148** (1978) 235
KLIGERMAN, M. M., *see* KNOWLES **147** (1977) 157
KLIWER, J. K., *see* MARSHALL **150** (1978) 241
KLÖPPEL, K.-D., H. PETERS and W. SEIDEL, Investigation of an arc discharge ion source with energy selection (CMA) . **144** (1977) 407
KLOPPING, J. C., *see* GOULD **144** (1977) 493
KLOTZ, G., *see* BAUMANN **146** (1977) 308
KLUSOŇ, J., *see* ŠEDA **144** (1977) 557
KNAF, B., *see* HUBRICHT **144** (1977) 359
KNIES, G., *see* BRANDT **145** (1977) 593
KNOBLOCH, J., *see* HOLDER **148** (1978) 235
KNOTEK, O., *see* BEYER **148** (1978) 543
KNOWLES, H. B., *see* RUDDY **147** (1977) 25
KNOWLES, H. B., F. H. RUDDY, G. E. TRIPPARD, H. BICHSEL, J. EENMAA and J. E. SMATHERS, Status report: direct track detector dosimetry in fast neutron beams **147** (1977) 119
KNOWLES, H. B., F. H. RUDDY, G. E. TRIPARD, G. M. WEST and M. M. KLIGERMAN, States report: direct track detector dosimetry in negative pion beams **147** (1977) 157
KNOX, C., *see* MCGERVEY **143** (1977) 435
KNUDSEN, H., *see* ANDERSEN **149** (1978) 121
KNUDSEN, H., *see* ANDERSEN **149** (1978) 137
KNUDSEN, H., *see* SIGMUND **150** (1978) 221
KNUDSON, A. R., Effect of Fluorescence on the Determination of Depth Distributions by Ion-Induced X-Rays . . . **149** (1978) 445
KNUDSON, A. R., D. J. NAGEL, J. COMAS and K. W. HILL, Ion-Excited UV Lines Useful for Materials Analysis . . . **149** (1978) 507
KNUDSON, K., *see* GHIDINI **147** (1977) 313
KO, W., *see* ERWIN **148** (1978) 403
KOBAYAKAWA, K., *see* HIGASHI **150** (1978) 387

KOBAYASHI, K., *see* KANDA **148** (1978) 535
KOBAYASHI, M., *see* MORI **141** (1977) 383
KOBAYASHI, S., Simple description of large-area scintillation counter and its characteristic properties **143** (1977) 259
KOCH, F. B., *see* CLARK **149** (1978) 9
KOCHETKOV, V. I., *see* BUGORSKY **146** (1977) 367
KODAMA, H., *see* ONO **141** (1977) 193
KOENIG, W., *see* HASSELMANN **142** (1977) 163
KOENIG, W., F. W. RICHTER, U. STEINER, R. STOCK, R. THIELMANN and U. WÄTJEN, Trace element analysis by means of particle induced X-ray emission with triggered beam pulsing **142** (1977) 225
KOENIG, W., *see* SCHEER **142** (1977) 333
KOGA, Y., *see* WAKUTA **147** (1977) 461
KOGAN, A., *see* JONES **146** (1977) 313
KÖHNE, M., *see* STEFFENS **143** (1977) 409
KOIWA, M., *see* OZAWA **149** (1978) 405
KOJI, T., *see* TSENG **149** (1978) 615
KOKOSCHINEGG, P., *see* DABROWSKI **150** (1978) 25
KOLCHIN, A. A., V. V. LEBEDEV and G. P. SKREBTSOV, Spectrometric systems with a plane radioactive source **150** (1978) 441
KOLLEWE, D. and W. M. GIBSON, Application of Particle Channeling to the Study of a Cooperative Jahn–Teller Phase Transition in Nickel Chromite **149** (1978) 411
KOLTAY, E., *see* SOMOGYI **147** (1977) 287
KOMAKI, K., *see* ICHINOKAWA **149** (1978) 577
KOMOLOV, S. A., *see* CHADDERTON **149** (1978) 639
KONIJN, J., *see* BEETZ **145** (1977) 353
KONNO, S. and T. TAKAHASHI, Recombination luminescence in the scintillation of high pressure argon gas induced by alpha particles **150** (1978) 517
KOPEIKIN, V. I., *see* APALIN **143** (1977) 71
KORNILOV, V. A., *see* DRYAPACHENKO **141** (1977) 153
KORSCHINEK, G. and W. KUTSCHERA, A ^{48}Ca beam for tandem accelerators (*Letter to the Editor*) **144** (1977) 343
KORSCHINEK, G., *see* BRAUN-ELWERT **146** (1977) 121
KORTELING, R. G., *see* SEAMSTER **145** (1977) 583
KOSVINTSEV, Yu. Yu., E. N. KULAGIN, Yu. A. KUSHNIR, V. I. MOROZOV and A. V. STRELKOV, Extraction of ultracold neutrons from high flux reactor SM-2 . . . . . **143** (1977) 133
KOTAI, E., *see* MEZEY **149** (1978) 235
KOTENKO, L. P., *see* ERMILOVA **145** (1977) 555
KOURKOUMELIS, C., *see* FABJAN **141** (1977) 61
KOVAČEVIĆ, K., N. STIPČIČ, G. PAIČ, I. ŠLAUS, B. EMAN, V. PEČAR and M. ANTIĆ, Use of photodiodes for neutron dosimetry **148** (1978) 291
KÖVÉR, Á., Inner shell ionization research in the Institute of Nuclear Research in Debrecen, Hungary **142** (1977) 5
KOWNACKI, J., *see* KEREK **150** (1978) 479
KOYAMA, K., H. INOUE and M. MATSUOKA, A built-in potassium getter for the scintillation proportional counter . . **148** (1978) 257
KOZINETS, G. I., *see* BOGOMOLOV **147** (1977) 45
KOZLOV, V. D., *see* AKIMOV **147** (1977) 329
KRAL, J., *see* BEDERKA **145** (1977) 441
KRAMARENKO, V. A., *see* ALEXANIAN **148** (1978) 251
KRANER, H. W., *see* SHROY **149** (1978) 313
KRÄTSCHMER, W., Lunar and meteoritic mineral track detectors and the composition of the galactic cosmic radiation **147** (1977) 205
KRATZ, K.-L. *see* FRANZ **144** (1977) 253
KRAUS, L., I. LINCK, J. C. SENS and M. TOULEMONDE, High spin states in the mirror nuclei ^{15}O and ^{15}N **146** (1977) 312
KRAUSE, H. H., *see* ARNOLD **143** (1977) 441
KRAUSE, H. H., *see* ARNOLD **143** (1977) 457
KRAUSE, H. H., R. STOCK, W. ARNOLD, H. BERG, E. HUTTEL, J. ULBRICHT and G. CLAUSNITZER, The Giessen polarization facility. III. Multi-detector analyzing system **143** (1977) 467
KRASNOKUTSKY, R. N., *see* DAVYDOV **145** (1977) 267
KRAUSS, A. R. and D. M. GRUEN, Energy Analyzed Secondary Ion Mass Spectroscopy and Simultaneous Auger and XPS Measurements of Ion Bombarded Surfaces **149** (1978) 547
KREFT, I., *see* KUMP **142** (1977) 205
KREFT, I., *see* RUPNIK **142** (1977) 209
KREGAR, M., J. MÜLLER, P. RUPNIK and F. ŠPILER, Concentration profile measurements in thin layers using multiply resonant nuclear reactions **142** (1977) 495
KREINER, H.-J., A high speed conveyor tube system for short-lived nuclide measurements **141** (1977) 119
KREISCHE, W. H. U. MAAR, H. NIEDRIG, K. REUTER and K. ROTH, A simple mounting for a liquid target *(Letter to the Editor)* **150** (1978) 325
KRENDELEV, V. A., *see* BUGORSKY **146** (1977) 367

KREUTZ, R., *see* NEUWIRTH **149** (1978) 105
KRITIDIS, P., I. UZUNOV and L. MINEV, Precision alpha-counting methods for determination of radon daughters in air **143** (1977) 299
KROHN, V. E., *see* RINGO **149** (1978) 735
KROPF, A., Calculation of proton-induced K-shell X-ray yield for distributed impurity atoms in bulk material **142** (1977) 79
KROPF, A., *see* BENKA **149** (1978) 441
KRUMPOLC, M., *see* HILL **150** (1978) 325
KRUPA, J. C., *see* CARLIER **143** (1977) 613
KUBOTA, S., M. HISHIDA, and A. NOHARA, Variation of scintillation decay in liquid argon excited by electrons and alpha particles **150** (1976) 561
KUDERSKA, T., *see* DWORAKOWSKI **144** (1977) 525
KUDO, H., *see* KYOSHIMA **147** (1977) 547
KUDO, K., Absolute measurement of the ^{56}Fe(n, p)^{56}Mn cross section at 14.8 MeV using an on-line monitoring system for the time variation of neutron flux **141** (1977) 325
KUEHNE, F. J., *see* ZIEGLER **149** (1978) 19
KUGEL, H. W. and G. F. HERZOG, Analysis of meteoritic samples using proton induced X-rays **142** (1977) 301
KÜHN, B., *see* BECKERT **146** (1977) 307
KUIJPERS, L., R. HERZING, P. CLOTH, D. FILGES and R. HECKER, On the determination of fast neutron spectra with activation techniques: Its application in a fusion reactor blanket model **144** (1977) 215
KUKUŁKA, J., *see* DWORAKOWSKI **144** (1977) 525
KULAGIN, E. N., *see* KOSVINTSEV **143** (1977) 133
KÜLLEN, R. P., *see* WAGNER **149** (1978) 659
KUMAR, A. and P. S. NAGARAJAN, Neutron spectra of ^{242}Cm–Be and ^{244}Cm–Be neutron sources **141** (1977) 145
KUMP, P., P. RUPNIK, M. BUDNAR and I. KREFT, Analysis of sulphur in plant material **142** (1977) 205
KUMP, P., *see* RUPNIK **142** (1977) 209
KUMPF, H., *see* BECKERT **146** (1977) 307
KÜNDIG, W., *see* HOFMANN **143** (1977) 609
KUNDU, S., *see* KIM **143** (1977) 371
KUNSCH, B., *see* EDER **141** (1977) 533
KURBAKOV, V. I., *see* BUGORSKY **146** (1977) 367
KURCEWICZ, W., E. RUCHOWSKA, N. KAFFNELL and N. TRAUTMANN, Precise energies of gamma rays from the ^{230}Th and ^{228}Th decay *(Letter to the Editor)* **146** (1977) 613
KURFESS, J. D., *see* SHARE **148** (1978) 531
KURZ, R., A novel pulse processing system for HgI_2 detectors **150** (1978) 91
KUSHEV, G., *see* BONCHEV **147** (1977) 481
KUSHNIR, Yu. A., *see* KOSVINTSEV **143** (1977) 133
KUSUMEGI, A., *see* YAMAMOTO **148** (1978) 203
KUTSCHERA, W., *see* KORSCHINEK **144** (1977) 343
KUTSCHERA, W., *see* BRAUN-ELWERT **146** (1977) 121
KUZNETSOV, I. V., *see* IVANOV **147** (1977) 333
KUZNETSOV, I. V., *see* KABACHENKO **147** (1977) 337
KWADOW, M., *see* HEITZ **149** (1978) 483
KYOSHIMA, A., K. SAITOH, K. KIMURA, H. KUDO and M. MANNAMI, Velocity measurement of fast ions by doppler shift of light emitted from ions passed through thin foil **147** (1977) 547

LACOURT, A., *see* HOLDER **148** (1978) 235
LACY, J. L., *see* GOLDEN **148** (1978) 179
LAKSHMIPATHY, A. V. and P. GANGADHARAN, Minimum size of soil sample for laboratory calibration of subsoil neutron moisture probe **142** (1977) 577
LAL, D., *see* GUPTA **146** (1977) 497
LAM S. T., *see* SOUKUP **141** (1977) 409
LAMBERT, K. P. and J. W. LEAKE, A method for measuring the rms noise of a composite amplifier–discriminator system **142** (1977) 489
LAMOUREUX, G., *see* LECOMTE **150** (1978) 289
LANCERI, L., *see* BIRSA **146** (1977) 357
LAND, D. J., *see* BRENNAN **149** (1978) 143
LANDIS, D. A., *see* ZEBELMAN **141** (1977) 439
LANFORD, W. A., ^{15}N Hydrogen Profiling: Scientific Applications **149** (1978) 1
LANFORD, W. A., *see* ZIEGLER **149** (1978) 19
LANG, H., R. W. HARRISON, R. R. JOHNSON and R. M. HENKELMAN, CAMAC control of the biomedical π^- beam line at TRIUMF **144** (1977) 589
LANGE, F., *see* BORER **143** (1977) 219
LANGE, F., *see* FIELD **143** (1977) 227

LANGEVIN, Y., *see* DRAN 147 (1977) 101
LANGKAU, R., Das Szintillationsabklingen deuterierter Flüssigkeitsszintillatoren 150 (1978) 541
LANGKAU, R., Das Szintillationsabklingen von Flüssigkeitsszintillatoren in Abhängigkeit von der Einschussenergie . 150 (1978) 545
LANGKAU, R., Szintillationsabklingen und Neutron-Gamma-Diskriminierungseigenschaften des schnellen Flüssigkeitsszintillators NE238 . . . . . 150 (1978) 593
LANGLEY, R. A., *see* BRICE 149 (1978) 191
LANGLEY, R. A. and D. K. BRICE, Energy Straggling of Protons in Carbon 149 (1978) 195
LANKFORD, A. J., *see* FABJAN 141 (1977) 61
LANNEFORS, H. O., T. B. JOHANSSON, L. GRANAT and B. RUDELL, Elemental concentrations and particle size distributions in an atmospheric background aerosol 142 (1977) 105
LASZEWSKI, R., *see* COOPE 150 (1978) 341
LASZEWSKI, R. M., *see* HOLT 141 (1977) 125
LATHROP, J. F., *see* CHEN 150 (1978) 585
LATTUADA, M., *see* ILLARI 143 (1977) 605
LATZEL, G., *see* LUKNER 146 (1977) 139
LATZEL, G., *see* BECHTOLD 150 (1978) 407
LAU, S. S., *see* TSENG 149 (1978) 615
LAU, S. S., *see* LIAU 149 (1978) 623
LAU, S. S., *see* WAGNER 149 (1978) 659
LAUER, C., *see* MORRISON 143 (1977) 311
LAUGHLIN, W., *see* ALESSI 147 (1977) 305
LAUL, J. C., *see* WOGMAN 141 (1977) 539
LAVERRIÈRE, G., *see* HOLDER 148 (1978) 235
LAVIGNE, J. M., *see* AKIMOV 147 (1977) 329
LAVIGNE, J. M., *see* PARLIER 148 (1978) 483
LAWRENCE, V. F., *see* CASTILLO 144 (1977) 27
LAWTHER, C., K. V. ANAND and B. FAKHOURI, A low energy implantation system for the fabrication of Mn-implanted ZnS electroluminescent films 148 (1978) 389
LAZĂR, I., *see* BERCEANU 146 (1977) 319
LEAKE, J. W., *see* LAMBERT 142 (1977) 489
LEAR, R. D., *see* VAN RINSVELT 142 (1977) 171
LEBEDEV, V. D., *see* BAKANOV 144 (1977) 99
LEBEDEV, V. V., *see* KOLCHIN 150 (1978) 441
LEBRITTON, J., F. LOBKOWICZ, A. C. MELISSINOS and W. METCALF, Use of iron lenses for the transport of muon beams 141 (1977) 81
LECHANOINE, C., *see* BESSET 148 (1978) 129
LECOGUIE, R., PH. LECONTE and J. MILLER, A very reliable pion conversion target 143 (1977) 13
LECOMTE, A., *see* PARLIER 148 (1978) 483
LECOMTE, R., P. PARADIS, S. MONARO, M. BARRETTE, G. LAMOUREUX and H. A. MÉNARD, Automatic data acquisition and on-line analysis of trace element concentration in serum samples 150 (1978) 289
LECONTE, PH., *see* LECOGUIE 143 (1977) 13
L'ECUYER, J., *see* ZIEGLER 149 (1978) 19
L'ECUYER, J., C. BRASSARD, C. CARDINAL and B. TERREAULT, The Use of ^{6}Li and ^{35}Cl Ion Beams in Surface Analysis (Invited) 149 (1978) 271
LEE, D. M., *see* EISBERG 146 (1977) 487
LEE, L. C. Y., *see* BARBER 145 (1977) 453
LEE, P. L., Width of a Lorentzian convoluted with a Gaussian (*Letter to the Editor*) 144 (1977) 363
LEE, T. R., *see* DANIELS 143 (1977) 187
LEE, Y. Y., New 200 MeV line to BLIP at AGS 148 (1978) 1
LEE GEN SOO, *see* KABACHENKO 147 (1977) 337
LEEPER, A. K., *see* WATSON 142 (1977) 311
LEFEVRE, H. W., *see* DAVIS 149 (1978) 41
LEFTEROV, D. P. and E. Y. ZARTOVA, Determination of the drift parameters of lithium in germanium with cylindrical and spherical forms of the electric field 147 (1977) 583
LEHRAUS, I. and W. TEJESSY, Development of an on-line control system for the rf separated hadron beams to BEBC . 141 (1977) 29
LEIMANN, E. A., *see* ANDRESEN 146 (1977) 391
LEIMANN, E. A. and A. VAN DORDRECHT, A burst length discrimination system for a gas scintillation proportional counter 146 (1977) 399
LEITCH, M., *see* BERTOZZI 141 (1977) 457
LELEUX, P., *see* BOSMAN 148 (1978) 363
LENGELER, H., *see* GRUNDER 141 (1977) 57
LENZI, G., P. PODINI, R. REVERBERI and K. PERNESTÅL, Low cost time to digital converter in real time with ±1 ns resolution 150 (1978) 575
LEON, J., *see* KENIGSBERG 148 (1978) 605

LERAY, J. P., *see* AKIMOV 147 (1977) 329
LERCHE, I., *see* EVENSON 147 (1977) 535
LESCHEVIN, C., *see* MAREL 141 (1977) 43
LESKOVEC, R. A., *see* BEVINGTON 147 (1977) 431
LESLIE, A. C. D., *see* AHLBERG 149 (1978) 451
LEUNG, D., *see* BERKNER 143 (1977) 157
LEVINS, D. M., R. W. GLASS, M. M. CHILES, D. J. INMAN and D. C. WATKIN, β-Scintillation monitor for Krypton-85 at high pressures 146 (1977) 517
LEWIS, R. K., *see* WILLIAMS 149 (1978) 567
L'HOIR, A., *see* RIGO 149 (1978) 721
LIAU, Z. L., S. S. LAU, M.-A. NICOLET, J. W. MAYER, R. J. BLATTNER, P. WILLIAMS and C. A. EVANS, Jr., Kinetic Aspects of Solid-Phase Epitaxial Growth of Amorphous Si 149 (1978) 623
LIBERT, J., Statistique de comptage: temps mort variable non cumulatif 141 (1977) 147
LIBERT, J., Statistique de comptage : Temps mort variable cumulatif 143 (1977) 357
LIBERT, L., Statistique de comptage a temps mort variable: expressions générales des distributions 146 (1977) 431
LIBERTO, S. DI and P. GINOBBI, Automatic device for measurements of heavy ion tracks in plastics 147 (1977) 75
LIEB, K. P., *see* BRANDOLINI 146 (1977) 326
LIEBERT, R. B., *see* TSONG 149 (1978) 523
LIEHU, A. E., Geological analysis by track etch method 147 (1977) 93
LIEN, Y-C. L., R. R. ZOMBOLA and R. C. BEARSE, Elemental analysis of water using proton-induced X-ray emission *(Letter to the Editor)* 146 (1977) 609
LIGEON, E., *see* ZIEGLER 149 (1978) 19
LIGEON, E., J. P. BUGEAT. and A. C. CHAMI, The Use of Hydrogen and Deuterium Implantation to Investigate Some Aspect of Defect–Impurity Interactions in Metals 149 (1978) 99
LILE, D. L., *see* WAGNER 149 (1978) 659
LINCK, I., *see* KRAUS 146 (1977) 312
LINDAHL, S.-Ö. and J. K. SHULTIS, Effect of the 2.37 MeV oxygen antiresonance in a fast neutron filter 144 (1977) 317
LINDBERG, B., *see* JEAVONS 148 (1978) 17
LINDBLAD, TH., *see* KEREK 150 (1978) 479
LINDH, U., *see* BRUNE 142 (1977) 51
LINDH, U., *see* GÖNCZI 149 (1978) 337
LINDKVIST, B., A new technique of loading nuclear emulsions with thin wires 141 (1977) 511
LINH, N. T., *see* HUBER 149 (1978) 543
LINK, R., *see* GÜTLICH 148 (1978) 573
LINKER, G., Channelling Analysis of Radiation Disorder in Ion Implanted Vanadium and Molybdenum Single Crystals 149 (1978) 365
LINSCOTT, I., *see* FIANBERG 141 (1977) 277
LIPNIK, P., *see* BOSMAN 148 (1978) 363
LISBONA, N., Surface transparency of optical potentials deduced from heavy-ion scattering studies 146 (1977) 243
LISOWSKI, P. W., R. L. WALTER, S. A. WENDER and T. B. CLEGG, A pulsed beam time pickoff system for nano-ampere beams 146 (1977) 477
LITTENBERG, L., *see* BARBER 145 (1977) 453
LIU, J-Y., *see* TZENG 150 (1978) 143
LIU, Y. C., *see* TZENG 150 (1978) 143
LIVINGSTON, A. E., H. G. BERRY and G. E. THOMAS, Thin carbon foil breakage times under ion beam bombardment 148 (1978) 125
LIVINGSTON, A. E., *see* BERRY 149 (1978) 517
LLACER, J. and D. F. MEIER, Performance of a time-variant filter in the presence of dominant $1/f$ noise 142 (1977) 597
LOBB, D. E., An interpolation scheme for cylindrically symmetric magnetic fields 148 (1978) 163
LOBKOWICZ, F., *see* LEBRITTON 141 (1977) 81
LODHI, A. S. and P. SIOSHANSI, Use of external beam in PIXE 142 (1977) 45
LODHI, A. S., *see* SIOSHANSI 142 (1977) 285
LOGAN, C. M., *see* BOOTH 142 (1977) 471
LOGAN, C. M., *see* BOOTH 145 (1977) 25
LOGAN, C. M., R. BOOTH and R. A. NICKERSON, A compact beryllium target for production of fast neutrons 145 (1977) 77
LOHNER, T., *see* MEZEY 149 (1978) 235
LÖHR, R., *see* HARDT 143 (1977) 519
LOMBAARD, J. M. and O. MEYER, Depth profiling of oxygen in oxidized ceramic Si_3N_4 with the backscattering technique 145 (1977) 347
LONE, M. A., C. B. BIGHAM, J. S. FRASER, H. R. SCHNEIDER, T. K. ALEXANDER, A. J. FERGUSON and A. B. MCDONALD, Thick target neutron yields and spectral distributions from the $^{7}Li(^{d}_{p}, n)$ and $^{9}Be(^{d}_{p}, n)$ reactions 143 (1977) 331
LONG, J., *see* ZUCKER 145 (1977) 185
LONGEQUEUE, J. P., *see* TSAN UNG CHAN 146 (1977) 314

Loose-Wagenbach, I. and G. Clausnitzer, A system for production and transport of ^{11}C isotopes *(Letter to the Editor)* **150** (1978) 345
Lorenzen, J., *see* Brune **142** (1977) 51
Loria, A., *see* Aprilesi **148** (1978) 187
Lornie, P. R. G., *see* Jones **146** (1977) 313
Lott, R. G., *see* Smith **143** (1977) 125
Lotz, U., E. Pitt, A. Scharmann and B. Vitt, Fast neutron dosimetry by track detection with cellulose nitrate films . **147** (1977) 149
Lovett, R., *see* Westerberg **145** (1977) 295
Lowenthal, E., *see* Caine **150** (1978) 83
Lubatti, H. J., *see* Wallick **146** (1977) 403
Lucardesi, P., *see* Fucci **147** (1977) 587
Luce, J., *see* Zucker **145** (1977) 185
Luchkov, B., *see* Akimov **147** (1977) 329
Lucke, W. H., *see* Hirvonen **149** (1978) 295
Luckstead, S. C., *see* Ruddy **147** (1977) 25
Ludemann, C. A., *see* Saltmarsh **145** (1977) 81
Ludgate, G. A., *see* Amsler **144** (1977) 401
Lui, Y.-W., *see* Karban **141** (1977) 387
Lukner, C., G. Latzel and H. Paetz gen. Schieck, Matching of heavy ion sources to tandem accelerators **146** (1977) 139
Lulich, C., *see* Auciello **147** (1977) 349
Lurio, A., J. F. Ziegler and J. J. Cuomo, A New Method for the Determination of Low-Energy Stopping Powers of Hydrogen and Helium **149** (1978) 155
Lurio, A., J. Keller and W. K. Chu, Channeling Dips for Si K and L X-Ray Yield **149** (1978) 387
Lurio, A., *see* Reuter **149** (1978) 495
Luvisetto, M. L., *see* Bacilieri **145** (1977) 255

Ma, I-Chang, *see* McDonald **148** (1978) 61
Maar, H. U., *see* Kreische **150** (1978) 325
Maarleveld, J. L., *see* Beetz **145** (1977) 353
MaCauley, M. W. S., *see* Singhal **148** (1978) 113
MacDonald, J. C. F., *see* Froelich **143** (1977) 473
Machner, H., *see* Hardt **143** (1977) 519
MacKenzie, I. K., *see* Sen **141** (1977) 293
Mackowski, J. M., *see* Thomas **149** (1978) 265
MacLeod, A. M., A buffer store for use with a multichannel analyser **142** (1977) 559
MacLeod, A. M., K. M. Smith and C. Raine, An LED flashing system for testing scintillation counter arrays **143** (1977) 181
MacMurdo, K. W. and W. W. Bowman, Assay of fissile materials by a cyclic method of neutron activation and delayed-neutron counting **141** (1977) 299
MacMurdo, K. W., *see* Wogman **141** (1977) 539
Macq, P., *see* Bosman **148** (1978) 363
Madiba, C. C. P., *see* Sellschop **149** (1978) 321
Madigan, W. P., *see* Hoftiezer **147** (1977) 465
Mafra, O. Y., M. F. Cesar, L. P. Geraldo, E. M. Tanaka and C. Renner, Determination of the ^{235}U content in enriched samples by the fission track registration technique **143** (1977) 117
Magee, C. W., *see* Clark **149** (1978) 9
Magee, C. W., *see* Ziegler **149** (1978) 19
Magee, C. W. and C. P. Wu, Hydrogen Ion Implantation Profiles as Determined by SIMS **149** (1978) 529
Maglich, B. C., The 1976 status of the Migma program of controlled fusion **144** (1977) 33
Maglich, B. C., *see* Menasian **144** (1977) 49
Maglich, B. C., *see* Ferrer **144** (1977) 51
Maglich, B. C., Unified criterion for proximity to controlled fusion **144** (1977) 77
Magnoni, G., *see* Aprilesi **148** (1978) 187
Magradze, N. V., *see* Akopova **147** (1977) 53
Mahesh, K., *see* Mustafa **150** (1978) 549
Maier, M. R., *see* Chalupka **150** (1978) 209
Maillard, J., *see* Marel **141** (1977) 43
Maillard, J., *see* Holder **148** (1978) 235
Maisonnier, Ch., *see* Bernard **145** (1977) 191
Majewski, S., *see* Breskin **143** (1977) 29
Majumdar, D., A theoretical investigation into the efficiency characteristics of low pressure spark chambers **148** (1978) 497
Maki, A., *see* Yamamoto **148** (1978) 203
Makino, M., *see* Eisberg **146** (1977) 487
Makowiecki, D., *see* Anderhub **142** (1977) 595

Makowiecki, D., A simple method for improving the transducer signal-to-noise ratio in an magnetostrictive wire readout system (*Letter to the Editor*) . . . 144 (1977) 367
Malanify, J. J., *see* Bearse . . . 142 (1977) 143
Malbequi, Y., *see* Marel . . . 141 (1977) 43
Malbequi, Y., *see* Holder . . . 148 (1978) 235
Malisan, M. R., *see* Abbondanno . . . 148 (1978) 577
Mallory, M. L., *see* Hudson . . . 141 (1977) 381
Malm, H. L., *see* Robertson . . . 150 (1978) 401
Małoszewski, P., *see* Umiastowski . . . 141 (1977) 347
Manca, J. J., *see* Froelich . . . 143 (1977) 473
Mandelli, L., *see* Ghidini . . . 147 (1977) 313
Manfredi, P. F., *see* Colla . . . 148 (1978) 489
Manfredotti, C., *see* de Blasi . . . 150 (1978) 103
Mangelson, N. F., M. W. Hill, K. K. Nielson and J. F. Ryder, Proton induced X-ray emission analysis of biological samples: some approaches and applications . . . 142 (1977) 133
Mangeot, Ph., *see* Comby . . . 150 (1978) 119
Mannami, M., *see* Kyoshima . . . 147 (1977) 547
Männer, R., *see* Glässel . . . 141 (1997) 111
Mantler-Niederstätter, F., F. Bensch and F. Grass, An extremely thin scintillation detector for thermal neutrons 142 (1977) 463
Manuaba, A., *see* Mezey . . . 149 (1978) 235
Manz, A., *see* Coffey . . . 150 (1978) 377
Maqueda, E. E., *see* Dussel . . . 146 (1977) 325
Marafie, A. M., *see* Bishop . . . 150 (1978) 505
Marar, T. M. K., Note on wire cathodes in multianode proportional counters . . . 141 (1977) 529
Marel, G., P. Bloch, S. Brehin, B. Devaux, A. M. Diamant-Berger, C. Leschevin, J. Maillard, Y. Malbequi, H. Martin, A. Patoux, J. Pelle, J. Plancoulaine, G. Tarte and R. Turlay, Large planar drift chambers . . . 141 (1977) 43
Marel, G., *see* Holder . . . 148 (1978) 235
Margaziotis, D. J., *see* Sourkes . . . 143 (1977) 589
Margulies, S., On the prestressing and deformation of rectangular particle detector frames . . . 148 (1978) 261
Marini, A., *see* Ash . . . 148 (1978) 431
Marseguerra, M., *see* Aprilesi . . . 148 (1978) 187
Marshall, R., *see* Barber . . . 145 (1977) 453
Marshall, R. E., A. R. El Fiqi and J. K. Kliwer, Measurement of stopping powers using ion-induced X-ray emission . . . 150 (1978) 241
Martin, B., *see* Nobiling . . . 142 (1977) 49
Martin, B., *see* Bosch . . . 149 (1978) 665
Martin, F. W., Advantages of Heavy Iions for High-Resolution Microscopy . . . 149 (1978) 475
Martin, H., *see* Marel . . . 141 (1977) 43
Martin, J. P., *see* Azuelos . . . 150 (1978) 427
Martinčič, R., V. Ivković and M. Tiringer, A system for stabilizing the gain of a scintillation spectrometer using a light-emitting diode and a processor in feedback . . . 147 (1977) 513
Martini, V., *see* Andersen . . . 149 (1978) 137
Maruhashi, A., Characteristics of a miniature dosimeter developed for measurement of electrons . . . 141 (1977) 87
Marx, D., *see* Güttner . . . 146 (1977) 413
Masetti, M., *see* Bacilieri . . . 145 (1977) 255
Massam, T., Light guide design for timing measurements in large counters . . . 141 (1977) 251
Masuda, K., *see* Takai . . . 149 (1978) 457
Mathieson, E., *see* Ambrose . . . 145 (1977) 601
Matsuda, H., *see* Fujita . . . 144 (1977) 279
Matsuda, H., *see* Taya . . . 150 (1978) 165
Matsunami, N., *see* Chu . . . 149 (1978) 115
Matsunami, N., T. Goto and N. Itoh, Energy and Temperature Dependences of Dechanneling by Displaced Atoms . 149 (1978) 430
Matsuo, T., *see* Fujita . . . 144 (1977) 279
Matsuoka, M., *see* Koyama . . . 148 (1978) 257
Matteson, S., J. M. Harris, R. Pretorius and M.-A. Nicolet, Precision Stopping Cross Section Measurement of Gold for ^{4}He . . . 149 (1978) 163
Matteuzzi, P., *see* Bacilieri . . . 145 (1977) 255
Maurer, G. S., *see* Crannell . . . 142 (1977) 455
Maxson, D. R., D. C. Palmer and J. R. Bading, A low background detection system for neutron reaction experiments . . . 142 (1977) 479
May, J., *see* Holder . . . 148 (1978) 235
Mayer, J. W., *see* Liau . . . 149 (1978) 623
Mayer, J. W., *see* Foti . . . 149 (1978) 381

MAYER, J. W., *see* TSENG **149** (1978) 615
MAYER-KUCKUK, T., *see* HARDT **143** (1977) 519
MAYER-KUCKUC, T., *see* BAUER **148** (1978) 407
MAYNARD, M., *see* PALMER **146** (1977) 328
MAZARAKIS, M. G., *see* MENASIAN **144** (1977) 49
MAZARAKIS, M. G., *see* FERRER **144** (1977) 51
MCCAMIS, R. H., *see* CAMERON **143** (1977) 399
MCCAMIS, R. H., *see* CAMERON **145** (1977) 405
MCCAMIS, R. H., *see* GOULDING **148** (1978) 5
MCCLELLAND, J. B., *see* GEAGA **141** (1977) 263
MCCRACKEN, G. M., *see* DEARNALEY **149** (1978) 253
MCDONALD, A. B., *see* LONE **143** (1977) 331
MCDONALD, J. C. and I-CHANG MA, Geiger-Mueller counter for mixed neutron–gamma beam dosimetry **148** (1978) 61
MCDONALD, W. J., *see* JAMES **142** (1977) 443
MCGERVEY, J. D., J. VOGEL, P. SEN and C. KNOX, Time resolution measurements with an improved discriminator and conical scintillators **143** (1977) 435
MCGOWAN, J. W., *see* FROELICH **143** (1977) 473
MCHARRIS, WM. C., *see* EDMISTON **141** (1977) 315
MCKEE, J. S. C., *see* WILK **142** (1977) 33
MCMILLAN, J. W., P. M. HIRST, F. C. W. PUMMERY, J. HUDDLESTON and T. B. PIERCE, Recent Developments in Nuclear Microprobe Analysis, Particularly the Determination of Beryllium Distributions in Metals **149** (1978) 83
MCNAMEE, W. L., *see* DELVECCHIO **144** (1977) 429
MCNAMEE, W. L., *see* ALESSI **147** (1977) 305
MCNAUGHTON, M. W., *see* GILAD **144** (1977) 103
MCNEILL, K. G., *see* HAACKE **144** (1977) 507
MCNULTY, P. J. and R. C. FILZ, Width measurements on neon and nitrogen tracks in Ilford G-5 emulsion **147** (1977) 41
MCPHERSON, R. G., F. E. VERMEULEN and F. S. CHUTE, Use of line charge system for a helical electrostatic quadrupole **148** (1978) 5
MEDSKER, L. R., *see* CAHILL **142** (1977) 307
MEGGITT, G. C., A dead time correction system using standard modules **146** (1977) 583
MEGRABIAN, G. K., *see* ALEXANIAN **148** (1978) 251
MEIER, D. F., *see* LLACER **142** (1977) 597
MEIER, K. L., *see* ARMSTRONG **145** (1977) 127
MELISSINOS, A. C., *see* LEBRITTON **141** (1977) 81
MELKUMOV, G. L., *see* ALEXANIAN **148** (1978) 251
MELKUMYAN, L. V., *see* AKOPOVA **147** (1977) 53
MÉNARD, H. A., *see* LECOMTE **150** (1978) 289
MENASIAN, S. C., J. FERRER, B. C. MAGLICH, M. G. MAZARAKIS, J. E. NERING, C. POWELL, J. SANDBERG and A. R. WHITTEMORE, Advanced fuel fusion experimentation with migmacells II and III – orbit diagnostics and lifetime measurements **144** (1977) 49
MENASIAN, S. C., *see* FERRER **144** (1977) 51
MENZIONE, A., *see* FUCCI **147** (1977) 587
MERDINGER, J. C., *see* BOZEK **146** (1977) 327
MERLI, C., *see* COLLA **148** (1978) 489
MERTENS, G., *see* TORNOW **146** (1977) 545
MERTENS, P., Energy Loss of Light 300 keV Ions in Thin Metal Foils **149** (1978) 149
MERZON, G. I., *see* ERMILOVA **145** (1977) 555
MESSERSCHMID, E. and M. MONTH, Theory for the fast blowup of particle bunches in accelerators **141** (1977) 1
MESSERSCHMID, E., *see* MONTH **144** (1977) 119
METAG, V., *see* JUST **148** (1978) 283
METAG, V., *see* ULFERT **148** (1978) 369
METCALF, W., *see* LEBRITTON **141** (1977) 81
MEULDERS, J. P., *see* BOSMAN **148** (1978) 363
MEYER, E. A., *see* ARMSTRONG **145** (1977) 127
MEYER, O., *see* LOMBAARD **145** (1977) 347
MEYER, O., Channeling Effect Studies in V_3Si Single Crystals **149** (1978) 377
MEYER, W. G., *see* ZEBELMAN **141** (1977) 439
MEZEY, G., E. KOTAI, T. LOHNER, T. NAGY J. GYULAI and A. MANUABA, Improved Depth Resolution of Channeling Measurements in Rutherford Backscattering by a Detector Tilt **149** (1978) 235
MGBENU, E., *see* PETERSSON **143** (1977) 525
MICHALEC, R. T., P. MIKULA and J. VÁVRA, A double neutron monochromator with periodically bent single crystals . **143** (1977) 121
MICHELETTI, S., *see* COLLA **148** (1978) 489
MIDDLETON, R., On producing negative ion beams of magnesium and calcium in a cesium sputter source **141** (1977) 373
MIDDLETON, R., A survey of negative ions from a cesium sputter source **144** (1977) 373

Miehé C., *see* Baumann **146** (1977) 308
Miehe, J. A., *see* Blaes **143** (1977) 171
Migliori, A. and R. D. Taylor, A low cost synchronous digital triangle generator and servo loop preamplifier for Mössbauer systems using 2^n channels of memory **145** (1977) 397
Mihailović, M. V., M. A. Nagarajan and M. Poljšak, A microscopic theory of collisions between complex nuclei based on the generator coordinate method **146** (1977) 235
Mikado, T., *see* Yamazaki **144** (1977) 515
Mikamo, S., *see* Higashi **150** (1978) 387
Mikenberg, G., *see* Elias **141** (1977) 25
Mikhailov, Yu. V., *see* Davydov **145** (1977) 267
Mikula, P., *see* Michalec **143** (1977) 121
Mildner, D. F. R., Small angle neutron scattering with azimuthal symmetry *(Letter to the Editor)* **150** (1976) 357
Miles, J. C. H. and A. G. Sherwin, Fission detectors as secondary standards for the measurement of fast neutron fluence **146** (1977) 503
Miley, G. H., F. H. Southworth, G. Gerdin and Chan Choi, Studies of deuterium-fueled Tokamak reactors . . **144** (1977) 9
Miley, G. H., Potential mirror concepts for radiation testing of fusion reactor materials **145** (1977) 169
Miller, Jr., A. C., *see* Helbig **149** (1978) 581
Miller, C. A., *see* James **142** (1977) 443
Miller, C. A., *see* Cameron **143** (1977) 399
Miller, D. J., *see* Cobb **141** (1977) 433
Miller, G. A., *see* Cameron **145** (1977) 405
Miller, G. L., *see* Blood **149** (1978) 225
Miller, G. L., *see* Buck **149** (1978) 591
Miller, J., *see* Lecoguie **143** (1977) 13
Miller, P. D., *see* Moak **150** (1978) 529
Miller, R. A., Generalized criterion for controlled fusion **144** (1977) 73
Miller, R. C., *see* Hill **150** (1978) 325
Miller, W., *see* Wessels **141** (1977) 157
Minato, S., A new method of determining the total flux of environmental gamma radiation by a 2″ ⌀ × 2″ NaI(Tl) scintillation counter *(Letter to the Editor)* **146** (1977) 459
Minev, L., *see* Kritidis **143** (1977) 299
Minkova, A., *see* Bonchev **147** (1977) 481
Minorikawa, Y., *see* Higashi **150** (1978) 387
Minowa, M., *see* Imanishi **150** (1978) 131
Minto, T., *see* Elias **141** (1977) 25
Miočinović, D., *see* Antanasijević **147** (1977) 139
Miroshkin, V. V., *see* Bakanov **144** (1977) 99
Misawa, M., *see* Suzuki **147** (1977) 519
Mischke, R. E., *see* Dalton **141** (1977) 595
Mitchell, D. F., *see* Graham **141** (1977) 131
Mitchell, I. V. and H. L. Eschbach, Standards for Backscattering Analysis **149** (1978) 727
Mitiha, B., Attempt at the mechanism of α cluster transfer in heavy ions from the theoretical analysis of $A(\alpha, 2\alpha)B$ reactions **146** (1977) 324
Mitrofanov, K. P., V. P. Gor'Kov and M. V. Plotnikova, The parameters of Mössbauer spectra taken by means of resonance detectors **144** (1977) 263
Mitsui, K., *see* Higashi **150** (1978) 387
Mittig, W., Nuclear pair creation in subcoulomb heavy ion collisions as a probe for strong Coulomb fields **146** (1977) 333
Miyagawa, S., *see* Moriya **150** (1978) 523
Miyake, K., *see* Imanishi **150** (1978) 131
Miyake, S., *see* Higashi **150** (1978) 387
Mizobuchi, A., *see* Takai **149** (1978) 457
Mkrtchian, G. G., *see* Alexanian **148** (1978) 251
Moak, C. D., L. B. Bridwell, H. A. Scott, G. D. Alton, C. M. Jones, P. D. Miller, R. O. Sayer, Q. C. Kessel and A. Antar, Absolute charge state yields of 20 MeV ^{127}I ions emerging from a gas stripper **150** (1978) 529
Modica, E., *see* Illari **143** (1977) 605
Moffett, D. R., *see* Colton **146** (1977) 593
Möhring, H. J., *see* Chirikov **144** (1977) 129
Moinester, M. A., *see* Gilad **144** (1977) 103
Molchanov, V. A., *see* Eckstein **149** (1978) 599
Möller, P. and H. V. Klapdor, A position-sensitive detector system for use in the focal planes of a multigap magnetic spectrograph **142** (1977) 447
Möller, W., M. Hufschmidt and Th. Pfeiffer, Diffusion Studies by Means of Nuclear Reaction Depth Profiling. **149** (1978) 73
Möller, W. and U. Nocken, The Energy Straggling of Protons in Thin Metal Foils at 0.35, 1.0, and 1.75 MeV . **149** (1978) 177

MOLNÁR, B., *see* DÉZSI **141** (1977) 401
MOMMSEN, H., *see* BAUER **148** (1978) 407
MONACELLI, P., *see* ASH **148** (1978) 431
MONACI, P. and M. G. PUTIGNANI, CRETA 74: an improvement of PAL 11A assembler for an implementation of IML-syntax for use with CAMAC **148** (1978) 601
MONARO, S., *see* LECOMTE **150** (1978) 289
MONETI, G., *see* FAINBERG **141** (1977) 277
MONTH, M., *see* MESSERSCHMID **141** (1977) 1
MONTH, M. and E. MESSERSCHMID, Anomalous electron bunch length due to fast instability **144** (1977) 119
MOOMEY, W. R., *see* HIGBIE **146** (1977) 439
MORAND, C., *see* TSAN UNG CHAN **146** (1977) 314
MORANDO, M., A. STRANIERI, G. FORTUNA and C. SIGNORINI, A $K^{\pi} = 4^{-}$ rotational band in ^{48}V **146** (1977) 311
MOREH, R., *see* WOLF **148** (1978) 195
MORELLI, S., *see* APRILESI **148** (1978) 187
MORETTO, L. G., *see* GLÄSSEL **142** (1977) 569
MORETTO, L. G., *see* JARED **150** (1978) 597
MORGAN, D. V., *see* PALMSTRÖM **150** (1978) 289
MORGAN, R. C., *see* PALMER **146** (1977) 328
MORI, Y., A. TAKAGI, M. KOBAYASHI, Y. WAKUTA, S. FUKUMOTO, K. KIKUCHI and M. SONODA, A pulse-operated polarized H^- source of Lamb-shift type **141** (1977) 383
MORILLOT, G., *see* HUBER **149** (1978) 543
MORIN, J., *see* HOURST **145** (1977) 19
MORITA, S., *see* KAJI **142** (1977) 21
MORITA, S., *see* SHIOKAWA **142** (1977) 199
MORIYA, Y., Y. ATO and S. MIYAGAWA, Sensitivity in light element analysis by 2 MeV and 150 keV proton and photon induced X-rays **150** (1978) 523
MOROZOV, V. I., *see* KOSVINTSEV **143** (1977) 133
MORRISON, R. J., J. CUMALAT, A. M. EISNER and C. LAUER, Use of optical filters to improve lead glass shower counter resolution **143** (1977) 311
MORRISON, R. W., *see* PELEKSKY **148** (1978) 457
MORSY, M. W., M. S. ATA, A. A. RABIE and M. O. SHAKER, A new version of the **R**-matrix theory for heavy ion transfer reactions **146** (1977) 321
MOSS, G. A., *see* CAMERON **143** (1977) 399
MOSS, G. A., *see* CAMERON **145** (1977) 405
MOSSOTTI, V. G., *see* CHRISTENSEN **149** (1978) 587
MOSZYŃSKI, M. and J. VACHER, Influence of incident light wavelength on time jitter of fast photomultipliers . . . **141** (1977) 319
MOSZYŃSKI, M. and B. Bengtson, Light pulse shapes from plastic scintillators **142** (1977) 417
MOUGIN, B., *see* AKIMOV **147** (1977) 329
MOUGIN, B., *see* PARLIER **148** (1978) 483
MUBARAKMAND, S., K. RASHID, P. CHAUDHRY and H. A. KHAN, Application of glass solid state nuclear track detectors in the measurement of the charged particle fission cross-section of uranium **147** (1977) 279
MUGA, M. L. and D. J. BURNSED, Heavy ion transmission detector **150** (1978) 183
MUKHIN, A. I., *see* BUGORSKY **146** (1977) 367
MULACHIÉ, A., *see* ASH **148** (1978) 431
MULLANI, N., *see* WESTERBERG **145** (1977) 295
MÜLLER, D., *see* BECKMANN **141** (1977) 525
MÜLLER, J., *see* KREGAR **142** (1977) 495
MULLER, J. C., A. FRIANT and P. SIFFERT, TSC in HgI_2 crystals grown by solution and vapor phase techniques . . . **150** (1978) 97
MÜLLER, K., *see* GHIDINI **147** (1977) 313
MÜLLER, K., *see* BIERSACK **149** (1978) 93
MÜLLER, P., W. SZYMCZAK and G. ISCHENKO, Applications of the Scattering Spectrometry with Fast Protons (5–8 MeV) and Heavy Ions (15–25 MeV) to Special Analysis Problems **149** (1978) 239
MÜNZENBERG, G., *see* GEISSEL **144** (1977) 465
MÜNZENBERG, G., *see* GÜTTNER **146** (1977) 413
MURAKAMI, T., *see* ONO **141** (1977) 193
MURAKI, Y., *see* HIGASHI **150** (1978) 387
MURDOCH, B. T., *see* GOULDING **148** (1978) 5
MURNICK, D. E., *see* BURNS **141** (1977) 429
MURPHY, C. T., *see* RAJA **143** (1977) 547
MUSKET, R. G., Combined ion, electron, and X-ray beams for studies of surfaces and thin films **144** (1977) 241
MUSTAFA, S. M. and K. MAHESH, Criterion for determining saturation current in parallel plate ionization chambers . **150** (1978) 549
MUTCHLER, G. S., *see* HOFTIEZER **147** (1977) 465

MUTTERER, M., J. P. THEOBALD and K.-P. SCHELHAAS, A low-pressure noble-gas scintillation counter for heavy-ion detection . . . **144** (1977) 159
MYLLYLÄ, R., A modern positron lifetime spectrometer . . . **148** (1978) 267
MYLLYLÄ, R., Improved time resolution in a positron lifetime spectrometer with the liquid scintillator NE238 . . . **148** (1978) 273

NADAI, J. P., *see* AMSEL . . . **149** (1978) 705
NADAI, J. P., *see* AMSEL . . . **149** (1978) 713
NAGARAJAN, M. A., *see* MIHAILOVIĆ . . . **146** (1977) 235
NAGARAJAN, P. S., *see* KUMAR . . . **141** (1977) 149
NAGATOMO, M., *see* ISHIWARA . . . **149** (1978) 417
NAGEL, D. J., *see* KNUDSON . . . **149** (1978) 507
NAGY, T., *see* MEZEY . . . **149** (1978) 235
NAKAJIMA, Y., *see* ASAMI . . . **147** (1977) 577
NAKAMURA, H., *see* ICHINOKAWA . . . **149** (1978) 577
NAKAMURA, I., *see* HIGASHI . . . **150** (1978) 387
NAKAMURA, T., *see* HIRAYAMA . . . **147** (1977) 563
NAKAMURA, T., *see* IMANISHI . . . **150** (1978) 131
NAKATA, A., *see* KIDO . . . **143** (1977) 601
NAMBA, S., *see* TAKAI . . . **149** (1978) 457
NANDI, B. C., *see* BREARE . . . **143** (1977) 41
NANDI, B. C., *see* BREARE . . . **143** (1977) 49
NANDI, B. C., *see* BREARE . . . **147** (1977) 341
NANDI, B. C., *see* BREARE . . . **150** (1978) 433
NARDI, B. G., *see* PARKS . . . **143** (1977) 93
NARDÒ, R., *see* GOGGI . . . **150** (1978) 603
NASSER, M. A., *see* GEAGA . . . **141** (1977) 263
NAVACH, F., *see* GHIDINI . . . **147** (1977) 313
NAVARRETE, V. R., *see* SHIOKAWA . . . **142** (1977) 199
NAVARRIA, F. L., *see* HOLDER . . . **148** (1978) 235
NAYLOR, H. and R. E. WHITE, An accurate measurement of the ^{27}Al(p, n)^{27}Si threshold energy . . . **144** (1977) 331
NAYLOR, H., *see* BARKER . . . **150** (1978) 537
NAZARETZ, M. A., *see* ZYCH . . . **144** (1977) 183
NEILSON, G. C., *see* SOUKUP . . . **141** (1977) 409
NELLEN, B., *see* GHIDINI . . . **147** (1977) 313
NELSON, J. W., *see* ORSINI . . . **142** (1977) 91
NELSON, J. W. and W. J. COURTNEY, Light element analysis by proton scattering . . . **142** (1977) 127
NELSON, J. W., *see* CAHILL . . . **142** (1977) 307
NELSON, J. W., *see* HUDSON . . . **149** (1978) 307
NEMETS, O. F., *see* DRYAPACHENKO . . . **141** (1977) 153
NERING, J. E., *see* MENASIAN . . . **144** (1977) 49
NERING, J. E., *see* FERRER . . . **144** (1977) 51
NESTEROV, V. E., *see* AKIMOV . . . **147** (1977) 329
NEUMANN, W., *see* HUSTER . . . **142** (1977) 353
NEUMANN, W., Spurious Malter pulses in a 4π proportional counter . . . **142** (1977) 439
NEUWIRTH, W., W. PIETSCH and R. KREUTZ, Chemical Influences on the Stopping Power . . . **149** (1978) 105
NEWTON, D., *see* BARBER . . . **145** (1977) 453
NICHOLSON-FLORENCE, M. B., *see* CASTILLO . . . **144** (1977) 27
NICKEL, F., *see* GÜTTNER . . . **146** (1977) 413
NICKERSON, R. A., *see* BOOTH . . . **145** (1977) 25
NICKERSON, R. A., *see* LOGAN . . . **145** (1977) 77
NICOLET, M-A., *see* MATTESON . . . **149** (1978) 163
NICOLET, M-A., *see* LIAU . . . **149** (1978) 623
NICOLET, M-A., *see* PRETORIUS . . . **149** (1978) 629
NIEDRIG, H., *see* KREISCHE . . . **150** (1978) 325
NIEL, M., *see* PARLIER . . . **148** (1978) 483
NIELSON, H. L., N. A. WOGMAN and R. L. BRODZINSKI, In situ subterranean gamma-ray spectroscopy . . . **143** (1977) 385
NIELSON, K. K., *see* MANGELSON . . . **142** (1977) 133
NIESEN, L., *see* WIT . . . **141** (1977) 515
NIGMANOV, T. S., *see* FILATOVA . . . **143** (1977) 17
NIGRO, A., *see* ASH . . . **148** (1978) 431
NIGRO, M., *see* ASH . . . **148** (1978) 431
NIILER, A. and R. BIRKMIRE, Measurement of Oxygen and Nitrogen Profiles in Steel . . . **149** (1978) 301
NIKITIN, V. A., *see* GOLOVATYUK . . . **145** (1977) 437

NIKOLAEV, V. A., Application of the track diameter measurement method in nuclear physics . . . 147 (1977) 283
NINAGAWA, K., *see* NOGAMI . . . 150 (1978) 195
NIR-EL, Y., *see* SHMID . . . 144 (1977) 601
NOBILING, R., K. TRAXEL, F. BOSCH, Y. CIVELEKOĞLU, B. MARTIN, P. POVH and D. SCHWALM, Focussing of proton beams to micrometer dimensions . . . 142 (1977) 49
NOBILING, R., *see* BOSCH . . . 149 (1978) 665
NOBLE, A. C., *see* CAMPBELL . . . 142 (1977) 289
NOBLET, A., *see* BAUWENS . . . 143 (1977) 497
NOCKEN, U., *see* MÖLLER . . . 149 (1978) 177
NODA, A., *see* IMANISHI . . . 150 (1978) 131
NOGAMI, K., K. YAMAKOSHI and K. NINAGAWA, An extremely low background beta–gamma–gamma coincidence spectrometer with GM–Ge(Li)–NaI(Tl) counter combination . . . 150 (1978) 195
NOHARA, A., *see* KUBOTA . . . 150 (1978) 561
NOLEN, JR., J. A., M. S. CURTIN and T. E. DYSON, A simple ion source for target preparation via ion beam sputtering *(Letter to the Editor)* . . . 150 (1978) 581
NOMURA, T., N. BENDJABALLAH and J. DELAUNAY, Unusually strong difference in the side-feeding to the 6^+ doublets of ^{56}Fe populated in heavy-ion compound reactions . . . 146 (1977) 310
NOMURA, T., *see* BALLINI . . . 146 (1977) 315
NOMURA, T., *see* BENDJABALLAH . . . 146 (1977) 316
NOPPE, J. M., *see* ROHRBACH . . . 141 (1977) 229
NORDE, H., *see* PETERSSON . . . 143 (1977) 525
NORDE, H., *see* PETERSSON . . . 149 (1978) 285
NORTON, P. R., *see* CONNELL . . . 144 (1977) 453
NORUM, B., *see* BERTOZZI . . . 141 (1977) 457
NOTHMAN, R., *see* ALFASSI . . . 143 (1977) 57
NOVAK, M. M., *see* CASTILLO . . . 144 (1977) 27
NOVGORODOV, A. F., *see* BEYER . . . 146 (1977) 419
NOVGORODOV, A. F., *see* BEYER . . . 148 (1978) 543
NOVICK, R., *see* ANDERSON . . . 144 (1977) 485
NOVIKOVA, N. R., *see* ZAKHAROV . . . 147 (1977) 49
NOWOTNY, R. and W. L. REITER, The use of silicon pin-photodiodes as a low-energy photonspectrometer . . . 147 (1977) 477
NUH, F. M., *see* FRANZ . . . 144 (1977) 253
NULLENS, H., *see* VAN ESPEN . . . 142 (1977) 243
NULLENS, H., *see* VAN ESPEN . . . 145 (1977) 579
NURUSHEV S., Spin precession in a quadrupole lens . . . 141 (1977) 417

OBST, A. W., *see* HIEBERT . . . 142 (1977) 467
OBUKHOV, V. A., *see* AFANAS'EV . . . 145 (1977) 533
OCKELS, W. J., A 20 cm 100% transmission drift chamber with thin foil cathodes . . . 144 (1977) 501
ODIAN, A., *see* ECKARDT . . . 143 (1977) 235
OFFERMANN, B. P., *see* CLELAND . . . 145 (1977) 41
OGANESSIAN, A. G., A. T. SARKISSIAN and M. ATAC, An unconventional transition radiation detector . . . 145 (1977) 251
OGAWA, K., *see* BOZEK . . . 146 (1977) 327
OGREN, H., *see* ASH . . . 148 (1978) 431
OH, S., *see* POGSON . . . 145 (1977) 403
OHASHI, Y., *see* HIGASHI . . . 150 (1978) 387
OHKAWA, S. and K. HUSIMI, An analysis of the power law type algorithm for identification of heavy ions by using the modified Zaidins empirical range–energy relationship . . . 142 (1977) 563
OHKAWA, S., *see* OSADA . . . 144 (1977) 353
OHKUBO, M., Recoil energy and effective mass determinations from neutron capture line shapes for narrow resonances 143 (1977) 173
OHLSSON, D., Heating and diagnostics by induced poloidal currents in a rotating plasma . . . 147 (1977) 379
OHM, H., *see* FRANZ . . . 144 (1977) 253
OHNUMA, H., *see* KASAGI . . . 144 (1977) 201
OHTA, W., *see* HASSELMANN . . . 142 (1977) 163
OHTSUKI, Y. H., T. OMURA, H. TANAKA and M. KITAGAWA, Dechanneling Theory for Axial and Planar Conditions . 149 (1978) 361
OKADA, A., *see* HIGASHI . . . 150 (1978) 387
OKAMOTO, P. R., *see* PRONKO . . . 149 (1978) 77
OKAMOTO, S., *see* KANDA . . . 148 (1978) 535
OLSEN, J. M., *see* FETT . . . 144 (1977) 109
OMURA, T., *see* OHTSUKI . . . 149 (1978) 361
ONO, A., M. FUKAWA, H. KICHIMI, H. KODAMA, T. MURAKAMI, R. SUGAHARA, A. SUZUKI and K. TAKAHASHI, An automatic film scanner (KAMA) utilizing a new type CRT with double deflection scheme . . . 141 (1977) 193
ONO, M., *see* IMANISHI . . . 150 (1978) 131

ONO, R., *see* KATO . . . 145 (1977) 525
ONO, R., *see* KATO . . . 145 (1977) 529
OONA, H. and C. Y. FAN, A counter system for natural C14 measurement . . . 143 (1977) 391
ORAM, C., *see* AMSLER . . . 144 (1977) 401
ORFORD, K. J., R. J. STUBBS and W. D. WADDOUP, Some results on the sensitivity of the RCA 4522 photomultiplier tube . . . 146 (1977) 389
ORR, B. H., *see* CAMPBELL . . . 142 (1977) 289
ORRE, B., *see* PETERSSON . . . 149 (1978) 285
ORSINI, C. Q. and L. C. BOUERES, A PIXE system for air pollution studies in South America . . . 142 (1977) 27
ORSINI, C. Q., H. C. KAUFMANN, K. R. AKSELSSON, J. W. WINCHESTER and J. W. NELSON, Variation of elemental composition with particle size in the St. Louis aerosol . . . 142 (1977) 91
ORTEGA, C., *see* AMSEL . . . 149 (1978) 705
ORTEGA, C., *see* AMSEL . . . 149 (1978) 713
OSADA, S., K. HUSIMI, Y. FUCHI, S. OHKAWA and S. WATANABE, Application of chemical preferential etching on fabrication of epitaxial silicon detectors (*Letter to the Editor*) . . . 144 (1977) 353
OSBORNE, A. M., *see* BARBER . . . 145 (1977) 453
OSHER, J. E., *see* BOOTH . . . 145 (1977) 25
OSMAN, A., Short-range correlations in one- and two-nucleon transfer reactions with Tabakin potential . . . 146 (1977) 322
OSTERMANN, H., *see* RAITH . . . 142 (1977) 39
O'SULLIVAN, D., *see* FOWLER . . . 147 (1977) 195
O'SULLIVAN, D., *see* FOWLER . . . 147 (1977) 201
OTTERLUND, I., Applications of SSNTDs in high energy physics . . . 147 (1977) 227
OTTO, W., *see* FIEDLER . . . 147 (1977) 35
OZAKI, S., *see* HIGASHI . . . 150 (1978) 387
OZAWA, K., S. YAMAGUCHI, Y. FUJINO, O. YOSHINARI, M. KOIWA and M. HIRABAYASHI, Channeling Studies on the Trapping of Deuterium in Vanadium by Oxygen Interstitials . . . 149 (1978) 405
OZEROV, Y., *see* AKIMOV . . . 147 (1977) 329

PAAR, H., *see* HOLDER . . . 148 (1978) 235
PAETZ GEN. SCHIECK, H., *see* LUKNER . . . 146 (1977) 139
PAETZ GEN. SCHIECK, H., *see* BECHTOLD . . . 150 (1978) 407
PAIČ, G., *see* KOVAČEVIČ . . . 148 (1978) 291
PALANO, A., *see* GHIDINI . . . 147 (1977) 313
PALAZZI, P., *see* HOLDER . . . 148 (1978) 235
PALLADINO, V., Investigation of argon–ethylene mixtures for drift chambers . . . 148 (1978) 35
PALMER, D. C., *see* MAXSON . . . 142 (1977) 479
PALMER, D. C., R. C. MORGAN, J. R. CRESSWELL, P. D. FORSYTH, I. HALL, M. MAYNARD and D. J. THOMAS, Coulomb excitation of ^{135}Ba . . . 146 (1977) 328
PALMER, G. A., *see* HUDSON . . . 141 (1977) 381
PALMGREN JENSEN, F., *see* KEMP . . . 142 (1977) 101
PALMSTRÖM, C. J., D. V. MORGAN and M. J. HOWES, Contact degradation of GaAs transferred electron devices . . . 150 (1978) 305
PAOLUZI, L., *see* ASH . . . 148 (1978) 431
PAO-SHAN WENG, *see* PIN-CHIEH HSU . . . 147 (1977) 529
PAPASTEFANOU, C., *see* CHARALAMBOUS . . . 142 (1977) 581
PAPE, A., *see* SCHARFER . . . 146 (1977) 573
PAPINEAU, L., Intermediate structures and heavy-ion reactions . . . 146 (1977) 253
PAPPAS, P., *see* BURNS . . . 141 (1977) 429
PARADIS, P., *see* LECOMTE . . . 150 (1978) 289
PARETZKE, H. G., *see* ABMAYR . . . 147 (1977) 79
PARETZKE, H. G., Results of an international alpha particle registration intercomparison with solid state nuclear track detectors . . . 147 (1977) 133
PARETZKE, H. G., *see* SCHRAUBE . . . 147 (1977) 169
PARIZET, M. J., J. AUGERAT, M. AVAN, M. BALLET and M. VIALLE, Track reconstruction method in a small volume self-shunted streamer chamber – analysis of the errors for low energy electrons . . . 143 (1977) 363
PARKS, L. A., C. N. DAVIDS, B. G. NARDI and J. N. WORTHINGTON, Design and operation of a multiple rabbit . . . 143 (1977) 93
PARLIER, B., B. AGRINIER, E. BONFAND, B. MOUGIN, A. LECOMTE, J. ANDREJOL, J. C. COURTOIS, M. GORISSE, J. M. LAVIGNE, M. NIEL, G. VEDRENNE and C. DOULADE, A 1 m^2 gamma ray spark chamber telescope for the energy range 10–100 MeV . . . 148 (1978) 483
PARROTT, M., *see* WESSELS . . . 141 (1977) 157
PASCOLI, D., *see* CENTRO . . . 150 (1978) 565
PASHUK, V. V., *see* BAKANOV . . . 144 (1977) 99
PASSUELLO, D., *see* FUCCI . . . 147 (1977) 587
PATIOU, A., *see* BRUERE-DAWSON . . . 145 (1977) 607

PATOUX, A., *see* MAREL **141** (1977) 43
PATRICK, G., *see* BARBER **145** (1977) 453
PAUL, H., *see* BENKA **142** (1977) 83
PAUL, H., *see* GERETSCHLÄGER **144** (1977) 171
PAUL, J. A., *see* AKIMOV **147** (1977) 329
PAULI, G., *see* CERNIGOI **144** (1977) 479
PAULIN, A. and T. ZORIČ, High voltage experiments for electrostatic inflector and extractor **150** (1978) 369
PAYROVAN, H., *see* SIOSHANSI **142** (1977) 285
PEACOCK, A., *see* ANDRESEN **146** (1977) 391
PEAK, L. S., *see* BAKICH **148** (1978) 167
PEARCE, G. F., *see* BARBER **145** (1977) 453
PEČAR, V., *see* KOVAČEVIČ **148** (1978) 291
PEDRETTI, E., *see* ARCIPIANI **147** (1977) 571
PEISACH, M., *see* PRETORIUS **149** (1978) 69
PEKELSKY, J. R., R. W. MORRISON and F. VILLA, Effect of high gas density and energy control on spark width in narrow gap chambers **148** (1978) 457
PELIZZARI, C. A. and T. A. POSTOL, Effect of imperfect beam modulation in neutron time of flight spectroscopy using mechanical correlation choppers **143** (1977) 139
PELLE, J., *see* MAREL **141** (1977) 43
PELLETT, D. E., *see* ERWIN **148** (1978) 403
PENDLEBURY, J. M., *see* HERDIN **148** (1978) 353
PENZO, A., *see* BIRSA **146** (1977) 357
PERAZZO, R. P. J., *see* DUSSEL **146** (1977) 325
PERELSHTEIN, E. A., *see* DYMNIKOV **148** (1978) 567
PEREZ-MENDEZ, V., *see* GEAGA **141** (1977) 263
PERFILOV, N. A., *see* ZAKHAROV **147** (1977) 49
PERNERTÅL, K., *see* LENZI **150** (1978) 575
PERRIN, P., *see* GUET **150** (1978) 189
PERRY, D. G., A CAMAC automatic nuclear chemistry laboratory **147** (1977) 615
PERUZZI, I., *see* ASH **148** (1978) 431
PESCARA, L., *see* ASH **148** (1978) 431
PESHEKHONOV, V. D., *see* GOLOVATYUK **145** (1977) 437
PÉTER, J., Deep inelastic collisions with heavy ions: experiments **146** (1977) 225
PETERS, H., *see* KLÖPPEL **144** (1977) 407
PETERSEN, G., *see* CHARPAK **148** (1978) 471
PETERSON, R. J., *see* EMIGH **144** (1977) 87
PETERSSON, S., E. MGBENU, H. NORDE and P. A. TOVE, Evaluating PtSi front contact to surface barrier detectors . . . **143** (1977) 525
PETERSSON, S., H. NORDE, G. POSSNERT and B. ORRE, Oxygen Distribution Profiles in Thin Evaporated Contacts on Single Crystal Silicon **149** (1978) 285
PETIT, J. C., *see* DRAN **147** (1977) 101
PETIT, R., *see* BOSMAN **148** (1978) 363
PETRASCU, M., *see* BERCEANU **146** (1977) 319
PETRIDOU, CH., C. CHRISTODOULIDES and S. CHARALAMBOUS, Non-radiation induced thermoluminescence in pre-irradiated LiF(TLD-100) **150** (1978) 247
PETROVICI, M., *see* BERCEANU **146** (1977) 319
PEYAUD, B., *see* HOLDER **148** (1978) 235
PFEIFFER, B., *see* WOLLNIK **144** (1977) 565
PFEIFFER, Th., *see* MÖLLER **149** (1978) 73
PHADNIS, U. V., *see* KAMBOJ **148** (1978) 57
PHILIPS, G. C., *see* HOFTIEZER **147** (1977) 465
PHILLIPS, J. R., *see* GRAHAM **141** (1977) 131
PIANO-MORTARI, G., *see* ASH **148** (1978) 431
PICCIARELLI, V., *see* GHIDINI **147** (1977) 313
PICCOLO, M., *see* ASH **148** (1978) 431
PICRAUX, S. T., Low Concentration Oxygen Depth Profiling by the $^{16}O(d, \alpha)^{14}N$ Reaction **149** (1978) 289
PICRAUX, S. T., *see* CAMPISANO **149** (1978) 371
PICRAUX, S. T., *see* ELLISON **149** (1978) 425
PIEMONTESE, L., *see* BIRSA **146** (1977) 357
PIERCE, T. B. and J. HUDDLESTON, The application of two dimensional scanning to light element mapping with the nuclear microprobe **144** (1977) 231
PIERCE, T. B., *see* MCMILLAN **149** (1978) 83
PIESCH, E., *see* BURGKHARDT **141** (1977) 141
PIESCH, E., *see* BURGKHARDT **141** (1977) 363

PIESCH, E., *see* SINGH **142** (1977) 409
PIESCH, E., Progress in Albedo neutron dosimetry **145** (1977) 613
PIESCH, E. and J. JASIAK, Automatic spark counting of fast neutron induced recoil particles in polymers **147** (1977) 57
PIESCH, E., *see* BURGKHARDT **148** (1978) 613
PIETSCH, W., *see* NEUWIRTH **149** (1978) 105
PIKHTELEV, R. N., *see* ALEXANIAN **148** (1978) 251
PIMENTEL, C. A. and L. Q. AMARAL, Considerations about reactions occurring in pile irradiation of LiF crystals *(Letter to the Editor)* **148** (1978) 199
PIN-CHIEH HSU, CHIA-LIANG TSENG and PAO-SHAN WENG, Spurious thermoluminescence of calcium sulfate due to ambient atmosphere during irradiation **147** (1977) 529
PINELLI, T., *see* ADANI **146** (1977) 332
PINELLI, T., G. BERTHER, G. BRACCO, F. FOSSATI and P. TORRE, A ^{6}Li semiconductor sandwich neutron spectrometer with background discrimination by identification of reaction products **150** (1978) 497
PIRART, C., *see* BOSMAN **148** (1978) 363
PISANI, C., *see* POUTHAS **145** (1977) 445
PITT, E., *see* LOTZ **147** (1977) 149
PITTHAN, R., *see* GORDON **145** (1977) 569
PLANCOULAINE, J., *see* MAREL **141** (1977) 43
PLEW, L., *see* HUBER **149** (1978) 635
PLOTNIKOVA, M. V., *see* MITROFANOV **144** (1977) 263
POATE, J. M., *see* CRIDER **149** (1978) 701
PODINI, P., *see* LENZI **150** (1978) 575
POFAHL, E., *see* SCHÄFER **143** (1977) 489
POGSON, R. and S. OH, An improvement to the beam buncher of the University of Manitoba cyclotron *(Letter to the Editor)* **145** (1977) 403
POHL, B. A., *see* BOOTH **145** (1977) 25
POHL, F., *see* ALTSTETTER **149** (1978) 59
POLETAEV, V. I., *see* BUGORSKY **146** (1977) 367
POLICARPO, A., *see* BRESKIN **143** (1977) 29
POLICARPO, A., *see* CHARPAK **148** (1978) 471
POLICARPO, A. J. P. L., *see* ALVES **144** (1977) 605
POLICHAR, R. M., *see* DUNHAM **145** (1977) 537
POLJŠAK, M., *see* MIHAILOVIĆ **146** (1977) 235
POLLMANN, D., *see* HOLDER **148** (1978) 235
POMAR, C., *see* KEREK **150** (1978) 479
PONCET M. and C. ENGELMANN, Study of the X-Ray Emission Induced by 4 to 30 MeV Protons or Alpha Particles, with a View to Analytical Application **149** (1978) 461
PONPON, J. P., J. J. GROB, A. GROB, R. STUCK and P. SIFFERT, Interface Studies of Metal–Semiconductor Contacts by Means of SIMS, Nuclear Reaction and RBS **149** (1978) 647
POPEKO, G. S., *see* GAEGELER **150** (1978) 173
POPOV, A., *see* AKIMOV **147** (1977) 329
POPPE, C. H., *see* DAVIS **149** (1978) 41
PORSTENDÖRFER, J., *see* WOLLNIK **144** (1977) 247
PORTER, L. E., Mean excitation energies of Si, Ni, Ge, Y, Ag and Au based on alpha particle stopping power measurements **148** (1978) 119
POSKANZER, A. M., *see* ZEBELMAN **141** (1977) 439
POSSNERT, G., *see* PETERSSON **149** (1978) 285
POSTHUMUS, W. L., *see* BEETZ **145** (1977) 353
POSTMA, H., *see* BOSMAN **148** (1978) 331
POSTOL, T. A., *see* PELIZZARI **143** (1977) 139
POTTER, J. M., *see* GILAD **144** (1977) 103
POULET, M. and A. SANTRONI, An air light guide, plastic scintillation counter **148** (1978) 359
POUTHAS, J., S. AGARWAL, M. ENGRAND and C. PISANI, Intrinsic time resolution of detectors in a time-of-flight spectrometer **145** (1977) 445
POVH, B., *see* NOBILING **142** (1977) 49
POVH, B., *see* BOSCH **149** (1978) 665
POWELL, C., *see* MENASIAN **144** (1977) 49
POWELL, C. W., *see* FERRER **144** (1977) 51
PRABHAKAR, B. R., Improvement in the voltage grading (axial and radial) of the generator column of a Van de Graaff generator by the use of a resistor chain **142** (1977) 357
PREGL, G., *see* RANT **150** (1978) 317
PRELEC, K., A Penning source for negative hydrogen ions **144** (1977) 413
PRESSER, G., *see* HUBRICHT **144** (1977) 359

PRESTWICH, W. V., *see* VARTSKY **145** (1977) 321
PRETORIUS, R. and M. PEISACH, Charged Particle Analysis of Light Elements By Total Energy Coincident Measurement of Complementary Particles **149** (1978) 69
PRETORIUS, R., *see* MATTESON **149** (1978) 163
PRETORIUS, R., C. L. RAMILLER and M-A. NICOLET, Marker Studies of Silicide Formation. Silicon Self-Diffusion and Silicon Epitaxy Using Radioactive Silicon and Rutherford Backscattering **149** (1978) 629
PRETZL, K. P., *see* ECKARDT **143** (1977) 235
PRICE, H. G., *see* JONES **146** (1977) 313
PROKHINE, V. L., *see* AKIMOV **147** (1977) 329
PROKHORENKO, Y. P., *see* AKOPOVA **147** (1977) 53
PROKOSHKIN, YU. D., *see* DAVYDOV **145** (1977) 267
PRONKO, P. P., P. R. OKAMOTO and H. WIEDERSICH, Low Energy p–Be Nuclear Reactions for Depth-Profiling Be in Alloys **149** (1978) 77
PRONKO, P. P., *see* FOTI **149** (1978) 381
PRULL, D. E., *see* EMIGH **144** (1977) 87
PRUSSIN, S. G., *see* FRANZ **144** (1977) 253
PRZYBYLSKI, M. M., *see* EDWARDS **147** (1977) 605
PSZONA, S. and M. HÖFERT, A rapid method for the determination of dose equivalent in mixed radiation fields **146** (1977) 509
PUGACHEVICH, V. P., *see* FILATOVA **143** (1977) 17
PUGHACH, V. M., *see* DRYAPACHENKO **141** (1977) 153
PUIGH, R. J. and K. W. KEMPER, Improved mass resolution with a standard $\Delta E \times E$ counter telescope **142** (1977) 531
PUMMERY, F. C. W., *see* MCMILLAN **149** (1978) 83
PURSER, K. H., Heavy-ion injection for tandem accelerators **146** (1977) 115
PUTIGNANI, M. G., *see* MONACI **148** (1978) 601
PYLE, R. V., *see* BERKNER **143** (1977) 157

QUAGLIA, L., *see* WEBER **148** (1978) 11
QUAGLIA, M., *see* FUCCI **147** (1977) 587
QUARANTINI, C., *see* COLLA **148** (1978) 489

RABIE, A. A., *see* MORSY **146** (1977) 321
RABIN, B., *see* SIFFERT **150** (1978) 31
RAD, F. N., *see* BERTOZZI **141** (1977) 457
RADA, W. S., E. A. M. SHAAT, A. C. SMITH, T. R. STEWART, M. G. THOMPSON and M. W. TREASURE, The Durham extensive air shower array – I; A description **145** (1977) 283
RAGER, J. P., *see* BERNARD **145** (1977) 191
RAIKO, V. I., *see* AFANAS'EV **145** (1977) 533
RAINE, C., *see* MACLEOD **143** (1977) 181
RAITH, B., M. ROTH, K. GÖLLNER, B. GONSIOR, H. OSTERMANN and C. D. UHLHORN, Trace element analysis by ion induced X-ray emission spectroscopy **142** (1977) 39
RAJA, R. and D. BOGERT, Maximum Likelihood analysis of ionization data from SAMM **143** (1977) 543
RAJA, R. and C. T. MURPHY, A semi-automatic bubble matching method for bubble chamber tracks **143** (1977) 547
RAMILLER, C. L., *see* PRETORIUS **149** (1978) 629
RAMIREZ, J. J., A. J. TOEPFER and M. J. CLAUSER, Pulsed power applications to intense neutron source development . **145** (1977) 179
RAMSAY, J. D. F., *see* ARMITAGE **149** (1978) 329
RANDELL, C. P., *see* WILK **142** (1977) 33
RANDER, J., *see* HOLDER **148** (1978) 235
RANDRUP, J., Some aspects of macroscopic nuclear dynamics **146** (1977) 213
RANFT, J., *see* SCHIRRMEISTER **141** (1977) 425
RANFT, J., *see* CHIRIKOV **144** (1977) 129
RANJARD, F., *see* HOLDER **148** (1978) 235
RANT, J. and G. PREGL, Surface imaging with backscattered beta-rays using extended area beta-ray sources **150** (1978) 317
RAO, G. R., *see* AZUELOS **150** (1978) 427
RAO, M. N., *see* SALÉM **146** (1977) 320
RAO, M. N., *see* GUPTA **146** (1977) 497
RAO, Y. V., *see* YOUNG **147** (1977) 255
RAO, Y. V., K. FUKUI and P. S. YOUNG, The scattering constant for multiply charged particles in emulsions **147** (1977) 259
RAPIN, D., *see* BESSET **148** (1978) 129
RASHID, K., *see* MUBARAKMAND **147** (1977) 279
RATHGEBER, E., *see* GRUNDER **141** (1977) 57
RAUSCH, E. O. and E. W. THOMAS, Backscattering of Excited Hydrogen from Mo in the Presence of Oxygen **149** (1978) 511
RAUTENBERG, T., *see* FIEDLER **147** (1977) 35
PAVASI, M. R., *see* APRILESI **148** (1978) 187

RAVIART, A., *see* AKIMOV **147** (1977) 329
RAVN, H. L., *see* CARRAZ **148** (1978) 217
RAY, P. K. and E. S. KENNEY, Calculation of the gamma ray contribution to proton recoil counter data in a mixed neutron–gamma ray field **144** (1977) 579
RAY, P. S., *see* CASTILLO **144** (1977) 27
RAZORENOVA, I. F., *see* BOGOMOLOV **147** (1977) 45
RECHTIN, M. D., *see* FOTI **149** (1978) 381
REES, J. D. B., *see* BARBER **145** (1977) 453
REHAK, P., *see* FABJAN **141** (1977) 61
REIMANN, R., Hochfrequenz-Struktur für Linearbeschleuniger *(Letter to the Editor)* **150** (1978) 337
REITER, W. L., *see* NOWOTNY **147** (1977) 477
REITZ, G., *see* HILDEBRAND **147** (1977) 19
RENAN, M. J., *see* SELLSCHOP **149** (1978) 321
RENNER, C., *see* MAFRA **143** (1977) 117
RETHMEIER, J., *see* KETEL **146** (1977) 335
REUCROFT, S., *see* COFFEY **150** (1978) 377
REUTER, K., *see* BRAUNECKER **150** (1978) 321
REUTER, K., *see* KREISCHE **150** (1978) 325
REUTER, W. and A. LURIO, Detection Sensitivities in Proton and Electron Induced X-Ray Spectroscopy **149** (1978) 495
REVEL, G. and M. FEDOROFF, Neutron analysis of high purity metals **143** (1977) 277
REVERBERI, R., *see* LENZI **150** (1978) 575
RIABTSOV, V. D., *see* FILATOVA **143** (1977) 17
RICCI, R. A. and C. SIGNORINI, The XTU tandem of the Laboratori Nazionali di Legnaro (Padova) **146** (1977) 93
RICHARD, P., *see* COPPENS **147** (1977) 87
RICHARDSON, J. R., *see* AMSLER **144** (1977) 401
RICHTER, F. W., *see* HASSELMANN **142** (1977) 163
RICHTER, F. W., *see* KOENIG **142** (1977) 225
RICHTER, F. W., *see* SCHEER **142** (1977) 333
RIDDLE, R. A. J., *see* ROBERTS **144** (1977) 369
RIDLEY, B. W., *see* EMIGH **144** (1977) 87
RIECK, JR., H. G., *see* WOGMAN **141** (1977) 539
RIEPPO, R., A relationship between the point and extended volume source geometries in the calculation of the efficiency values for NaI detectors **146** (1977) 557
RIGO, S., *see* AMSEL **149** (1978) 705
RIGO, S., C. COHEN, A. L'HOIR and E. BACKELANDT, Precision Absolute Thin Film Standard Reference Targets for Rutherford Backscattering Microanalysis **149** (1978) 721
RIIHONEN, M. and J. KEINONEN, Measurements of absolute resonance strengths in (p, γ) reactions on rare or gaseous nuclei **144** (1977) 323
RIMINI, E., *see* CAMPISANO **149** (1978) 229
RIMINI, E., *see* CAMPISANO **149** (1978) 371
RIMINI, E., *see* BAERI **149** (1978) 431
RIMONDI, O., *see* BASSI **143** (1977) 195
RINGLEE, R. J., *see* DE MELLO **144** (1977) 43
RINGO, G. R. and V. E. KROHN, Possible Applications of a High Brightness Gallium Source to Ion Microprobes . **149** (1978) 735
RISTORI, L., *see* FUCCI **147** (1977) 587
RITTER, R., *see* SCHERM **143** (1977) 77
ROBAYE, G., *see* WEBER **148** (1978) 11
ROBERTS, B. L., R. A. J. RIDDLE and G. T. SQUIER, Measurements of Lorentzian line-widths, Nucl. Instr. & Meth. 130 (1975) 559-563 (Erratum) **144** (1977) 369
ROBERTS, J. H., V. P. KAFALENOS and TH. J. YULE, Characterization of aerosols containing fissionable elements using solid-state track recorders **147** (1977) 83
ROBERTSON, B. C. and H. L. MALM, Timing properties of coaxial HPGe detectors **150** (1978) 401
ROBERTSON, L. P., *see* AMSLER **144** (1977) 401
ROBERTSON, R., Energy dispersive soft X-ray fluorescence analysis by radioisotopic α-particle excitation **142** (1977) 121
ROBERTSON, R. G. H., T. J. BOWLES and S. J. FREEDMAN, Cryogenic helium jet and recoil time-of-flight apparatus . . **147** (1977) 361
RÖBIG, G., *see* WOLLNIK **144** (1977) 247
ROBINSON, D. A. H., *see* BUCK **149** (1978) 591
ROBINSON, J. E., *see* AGAMY **149** (1978) 595
ROCĚK, J., *see* HILL **150** (1978) 325
ROCHE, M., *see* HOURST **145** (1977) 19
RODENACKER, K., *see* ABMAYR **147** (1977) 79
ROGERS, D. W. O., The ^{45}Sc(p,n) reaction as a source of monoenergetic 10-50 keV neutrons **142** (1977) 475
ROGERS, J. G., *see* CAMERON **143** (1977) 399

ROHRBACH, F., M. CATHENOZ, J. JENNY, J. COLAS, D. FOURNIER, J. M. NOPPE and J. J. VEILLET, Hydrogen streamer chamber up to atmospheric pressure . . . 141 (1977) 229
ROHRER, L., *see* DUNKEL . . . 146 (1977) 97
ROLANDI, L., *see* FUCCI . . . 147 (1977) 587
ROMAN, S., *see* KARBAN . . . 141 (1977] 387
RONGA, F., *see* ASH . . . 148 (1978) 431
ROOS, C. E., *see* COFFEY . . . 150 (1978) 377
ROOSE, U., *see* BAGGE . . . 147 (1977) 109
ROSARIO-GARCIA, E. and R. E. BENENSON, A versatile counter telescope for neutron-induced charged-particle reactions and finite geometry correction . . . 143 (1977) 245
ROSCHANGAR, M., *see* BRANDT . . . 145 (1977) 593
ROSENER, D., *see* ERWIN . . . 148 (1978) 403
RÖSLER, H., *see* GLÄSSEL . . . 141 (1977) 111
ROSSI-ALVAREZ, C., *see* BRANDOLINI . . . 146 (1977) 326
ROSSING, N., *see* BOJSEN . . . 150 (1978) 49
ROSSINI, B., *see* GOGGI . . . 150 (1978) 603
ROTH, J., B. M. U. SCHERZER, R. BEHRISCH and P. BØRGESEN, The Replacement of ^{3}He Implanted in Nb by Subsequent ^{4}He Bombardment and Vice Versa . . . 149 (1978) 53
ROTH, J., *see* TSENG . . . 149 (1978) 615
ROTH, K., *see* KREISCHE . . . 150 (1978) 325
ROTH, M., *see* RAITH . . . 142 (1977) 39
ROTH, M., *see* WILDE . . . 149 (1978) 675
ROTHACKER, F., *see* BROWN . . . 141 (1977) 393
ROTONDI, A., The use of Fourier series in the deconvolution of experimental curves . . . 142 (1977) 499
ROUSSEL, P., *see* SAGHAI . . . 141 (1977) 93
ROWE, J. E., *see* CRIDER . . . 149 (1978) 701
ROY, G., *see* CAMERON . . . 143 (1977) 399
ROY, G., *see* CAMERON . . . 145 (1977) 405
ROY, S. C., Z dependence of elastic scattering of gamma rays rechecked . . . 150 (1978) 283
ROYER, R. B. and R. M. BRUGGER, Development of a ^{235}U filtered beam of 186 eV neutrons . . . 145 (1977) 245
RUCHOWSKA, E., *see* KURCEWICZ . . . 146 (1977) 613
RUDDY, F. H., H. B. KNOWLES, S. C. LUCKSTEAD and G. E. TRIPARD, Etch induction time in cellulose nitrate: a new particle identification parameter . . . 147 (1977) 25
RUDDY, F. H., *see* KNOWLES . . . 147 (1977) 119
RUDDY, F. H., *see* KNOWLES . . . 147 (1977) 157
RUDELL, B., *see* LANNEFORS . . . 142 (1977) 105
RUDENKO, B. A., *see* DRYAPACHENKO . . . 141 (1977) 153
RUDITSKAYA, I. A., *see* BOGOMOLOV . . . 147 (1977) 45
RUDOLPH, W., *see* FRANZ . . . 144 (1977) 253
RUDOLPH, W., *see* BECKERT . . . 146 (1977) 307
RUEPPEL, D. W., *see* SLAUGHTER . . . 145 (1977) 315
RUFFINI, G., *see* ARMIGLIATO . . . 149 (1978) 653
RUPNIK, P., *see* KUMP . . . 142 (1977) 205
RUPNIK, P., P. KUMP, M. BUDNAR and I. KREFT, Protein quality of leguminous plants determined by proton-induced radiation analysis . . . 142 (1977) 209
RUPNIK, P., *see* KREGAR . . . 142 (1977) 495
RUSCH, T. W., *see* CHRISTENSEN . . . 149 (1978) 587
RUSSELL, G. J., S. K. BHATTACHARYYA and W. K. FOELL, A hybrid static/dynamic heating technique for the measurement of nuclear Doppler effects . . . 148 (1978) 99
RUSSELL, L. H., *see* BIRD . . . 149 (1978) 336
RYBAKOV, V. G., *see* BUGORSKY . . . 146 (1977) 367
RYCHENKOV, V. N., *see* BUGORSKY . . . 146 (1977) 367
RYDER, J. F., *see* MANGELSON . . . 142 (1977) 133

SACERDOTI, C., *see* ASH . . . 148 (1978) 431
SACHOT, R., *see* JEAVONS . . . 148 (1978) 17
SADDARUDIN, A., *see* KHAN . . . 147 (1977) 125
SAGHAI, B. et P. ROUSSEL, Compteur proportionnel à localisation pour la détection des ions lourds . . . 141 (1977) 93
SAHLIN, H., *see* ZUCKER . . . 145 (1977) 185
SAITOH, K., *see* KYOSHIMA . . . 147 (1977) 547
SAITTA, B., *see* CERNIGOI . . . 144 (1977) 479
SALADIN, J. X., *see* ALESSI . . . 147 (1977) 305

Salém, S., C. R. Appoloni, M. N. Rao and N. Ueta, Inelastic scattering of ^{3}He and α particles from ^{124}Sn and ^{122,124}Te . . . 146 (1977) 320
Salete S. C. P. Leite, M., *see* Alves . . . 144 (1977) 605
Salomaa, M. and H. A. Enge, Velocity selector for heavy-ion separation . . . 145 (1977) 279
Salomaa, M., *see* Tsoupas . . . 148 (1978) 93
Saltmarsh, M. J., C. A. Ludemann, C. B. Fulmer and R. C. Styles, Characteristics of an intense neutron source based on the d+Be reaction . . . 145 (1977) 81
Salvadori, P., *see* Fucci . . . 147 (1977) 587
Sampson, T. E., Relative intensities of gamma rays from ^{166m}Ho *(Letter to the Editor)* . . . 150 (1978) 361
Sandberg, J., *see* Menasian . . . 144 (1977) 49
Sander, S., *see* Geaga . . . 141 (1977) 263
Sands, R. H., *see* Dunham . . . 145 (1977) 537
Santangelo, R., *see* Ash . . . 148 (1978) 431
Santiard, J. C., *see* Charpak . . . 141 (1977) 449
Santiard, J. C., *see* Breskin . . . 143 (1977) 29
Santroni, A., *see* Poulet . . . 148 (1978) 359
Sapp, B., *see* Anderhub . . . 142 (1977) 595
Sapp, Jr., W. W., A bent crystal spectrometer geometry with a shadow source . . . 141 (1977) 391
Sarantites, D. G., *see* Westerberg . . . 145 (1977) 295
Sargent, C. P., *see* Bertozzi . . . 141 (1977) 457
Saris, F. W., *see* Hoonhout . . . 149 (1978) 355
Saris, F. W., *see* Wiggers . . . 149 (1978) 399
Sarkissian, A. T., *see* Oganessian . . . 145 (1977) 251
Sarkisyan, L. A., Higher energies of meson facilities in perspective . . . 142 (1977) 393
Sarper, R. M., *see* Guffey . . . 149 (1978) 489
Sartwell, B. D., *see* Campbell . . . 149 (1978) 496
Sasaki, K.-I., *see* Endo . . . 141 (1977) 273
Sasamoto, N. and S. Tanaka, Effect of the light output efficiency of charged particles on an unfolded neutron spectrum by an NE213 organic scintillator . . . 148 (1978) 395
Sasanuma, T., *see* Bertozzi . . . 141 (1977) 457
Sato, Y., Improvement of the plateau characteristics of self-quenching GM counters by γ-irradiation *(Letter to the Editor)* . . . 146 (1977) 599
Sauli, F., *see* Charpak . . . 141 (1977) 449
Sauli, F., *see* Filatova . . . 143 (1977) 17
Sauli, F., *see* Breskin . . . 143 (1977) 29
Sauli, F., *see* Charpak . . . 148 (1978) 471
Savoy-Navarro, A., *see* Holder . . . 148 (1978) 235
Sayed, A. M., *see* Ibrahim . . . 150 (1978) 555
Sayer, R. O., *see* Moak . . . 150 (1978) 529
Scannicchio, D., *see* Ash . . . 148 (1978) 431
Schäfer, R., *see* Steffens . . . 143 (1977) 409
Schäfer, W., G. Will, K. Grünhagen, E. Pofahl and K. Zwoll, A flexible four-detector system for a two-axis neutron diffractometer . . . 143 (1977) 489
Schapira, J. P., The zero-degree detection system of the Orsay MP tandem: description and experimental results . . . 146 (1977) 89
Scharbert, T., *see* Várnagy . . . 141 (1977) 489
Scharfer, U., C. Henrichs, J. D. Fox, P. von Brentano, L. Degener, J. C. Sens and A. Pape, Charge distributions of sulfur ions at energies between 70 and 140 MeV . . . 146 (1977) 573
Scharmann, A., *see* Lotz . . . 147 (1977) 149
Schedler, E., *see* Scherm . . . 143 (1977) 77
Scheer, J., L. Voet, U. Wätjen, W. Koenig, F. W. Richter and U. Steiner, Comparison of sensitivities in trace element analysis obtained by X-ray excited X-ray fluorescence and proton induced X-ray emission . . . 142 (1977) 333
Schelhaas, K.-P., *see* Mutterer . . . 144 (1977) 159
Scherm, R., G. Dolling, R. Ritter, E. Schedler, W. Teuchert and V. Wagner, A variable curvature analyser crystal for three-axis spectrometers . . . 143 (1977) 77
Scherpenzeel, D. E. C., *see* Engelbertink . . . 143 (1977) 161
Schery, S. D., *see* Bhowmik . . . 143 (1977) 63
Schery, S. D., L. E. Young, R. R. Doering, S. M. Austin and R. K. Bhowmik, Activation and angular distribution measurements of ^{7}Li(p,n)^{7}Be (0.0+0.429 MeV) for $E_p = 25-45$ MeV: A technique for absolute neutron yield determination . . . 147 (1977) 399
Scherzer, B. M. U., *see* Ziegler . . . 149 (1978) 19
Scherzer, B. M. U., *see* Roth . . . 149 (1978) 53
Scherzer, B. M. U., *see* Altstetter . . . 149 (1978) 59
Scherzer, R., *see* Bagge . . . 147 (1977) 109

SCHERZER, R., *see* GRABISCH **147** (1977) 263
SCHIAVON, P., *see* BIRSA **146** (1977) 357
SCHIEBER, M., Fabrication of HgI_2 nuclear detectors **144** (1977) 469
SCHIEBER, M., I. BEINGLASS, G. DISHON, A. HOLZER and G. YARON, State-of-the-art of crystal growth and nuclear spectroscopic evaluation of mercuric iodide radiation detectors **150** (1978) 71
SCHIEBER, M., *see* CAINE **150** (1978) 83
SCHIFFRER, G. and G. FONTE, A convergent algorithm for nuclear structure calculations **146** (1977) 318
SCHILLY, P., *see* HOLDER **148** (1978) 235
SCHIRRMEISTER, V. and J. RANFT, The calculation of hadron transmission through absorbers using Monte Carlo simulation of the hadron cascade **141** (1977) 425
SCHIRRMEISTER, V., *see* CHIRIKOV **144** (1977) 129
SCHLACHTER, A. S., *see* BERKNER **143** (1977) 157
SCHLATTER, D., *see* HOLDER **148** (1978) 235
SCHMAND, J., *see* HUSTER **142** (1977) 353
SCHMIDT, D., *see* BECKERT **146** (1977) 307
SCHMIDT, H. U., Kompakte Schachbrett-Detekton-Elektronik für Blocking-Experiments **141** (1977) 165
SCHMIDT, K., *see* BARGHOLTZ **143** (1977) 273
SCHMIDT, R., *see* ARNOLD **143** (1977) 457
SCHMIDT, W. K. H., *see* CHESHIRE **141** (1977) 219
SCHMIDT-BÖCKING, H., *see* GAUKLER **141** (1977) 115
SCHMIDT-OTT, W.-D., R.-D. VON DINCKLAGE and W. J. HILLER, Production and measurement of dispersion aerosols; application to the transport of deuteron-induced and ^{84}Kr-induced reaction recoils **141** (1977) 553
SCHMITT, A., *see* BRUGKHARDT **141** (1977) 141
SCHNEID, E. J., *see* ZIEGLER **149** (1978) 19
SCHNEIDER, H., *see* ENGEL **142** (1977) 525
SCHNEIDER, H. R., *see* LONE **143** (1977) 331
SCHNEIDER, J. D., *see* ARMSTRONG **145** (1977) 127
SCHNEIDER, U., *see* GROSSWENDT **144** (1977) 271
SCHÖFER, B., *see* BRANDT **145** (1977) 593
SCHOPPER, E., *see* SCHOTT **147** (1977) 63
SCHOTT, J. U., E. SCHOPPER and R. STAUDTE, A high precision video-electronic measuring system for use with solid state track detectors **147** (1977) 63
SCHOTT, W., *see* BUCKL **141** (1977) 599
SCHOTT, W., Iron-free coil arrangement for a β-ray spectrometer with an azimuth-dependent field *(Letter to the Edittor)* **147** (1977) 447
SCHRAUBE, H. and H. G. PARETZKE, Neutron fluence measurements with solid state nuclear track detectors – results of an international intercomparison **147** (1977) 169
SCHREINER, R. S., *see* ZYCH **144** (1977) 183
SCHUCH, R., *see* GAUKLER **141** (1977) 115
SCHULÉ, R., *see* GAUKLER **141** (1977) 115
SCHULT, O. W. B., In beam γ-ray spectroscopy at tandem Van de Graaff accelerators **146** (1977) 161
SCHULT, O. W. B., Applied nuclear physics for life sciences **146** (1977) 301
SCHULTE, R. L., *see* ZIEGLER **149** (1978) 19
SCHULTE, R. L., Depth Profiling of Helium Concentrations in Materials Using the ^{4}He(^{7}Li, γ)^{11}B Reaction . . **149** (1978) 65
SCHUMACHER, B. J., *see* BOOTH **145** (1977) 25
SCHÜRKES, P., *see* BAUER **148** (1978) 407
SCHUSSLER, F., *see* WOLLNIK **144** (1977) 565
SCHWALM, D., *see* NOBILING **142** (1977) 49
SCHWALM, D., *see* BOSCH **149** (1978) 665
SCHWARZKOPF, G., *see* ABMAYR **147** (1977) 79
SCHWEIKERT, E. A., *see* CROSS **142** (1977) 111
SCIAVUTA, E., *see* ASH **148** (1978) 431
SCOTT, D. T., *see* DALTON **141** (1977) 595
SCOTT, H. A., *see* MOAK **150** (1978) 529
SCOTT, M. D., *see* BIRD **149** (1978) 336
SCRIBANO, A., *see* FUCCI **147** (1977) 587
SEAMSTER, A. G., R. E. L. GREEN and R. G. KORTELING, Silicon detector ΔE, E particle identification: A theoretically based analysis algorithm and remarks on the fundamental limits to the resolution of particle type by ΔE, E measurements **145** (1977) 583
SEBASTIANI, F., *see* ASH **148** (1978) 431
ŠEDA, J., J. STRACHOTA, T. ČECHÁK and J. KLUSOŇ, The single backscattering of gamma rays **144** (1977) 557
SEGALOV, Z., *see* GOLDRING **141** (1977) 307
SEGERS, D., *see* UYTTENHOVE **141** (1977) 549
SEGERS, D., *see* DORIKENS **141** (1977) 561

SEGUINOT, J. and T. YPSILANTIS, Photo-ionization and Cherenkov ring imaging . . . 142 (1977) 377
SEIDEL, W., *see* KLÖPPEL . . . 144 (1977) 407
SEIDEL, W., *see* GAEGGELER . . . 150 (1978) 173
SEILER, P.-G., *see* ANDERHUB . . . 142 (1977) 595
SEILSCHOP, J. P. F., H. J. ANNEGARN, R. J. KEDDY, C. C. P. MADIBA and M. J. RENAN, Ion Beam Analyses in Relation to the Physical Properties of Diamond . . . 149 (1978) 321
SELOVE, W., *see* BEDNAR . . . 146 (1977) 597
SEMRAD, D. and P. BAUER, Stopping Cross Sections for Protons of 350–650 keV in Au, by a New Method . . . 149 (1978) 159
SEN, P. and I. K. MACKENZIE, Dual-parameter time and energy spectrometry in positron annihilation . . . 141 (1977) 293
SEN, P., *see* MCGERVEY . . . 143 (1977) 435
SENS, J. C., *see* KRAUS . . . 146 (1977) 312
SENS, J. C., *see* SCHARFER . . . 146 (1977) 573
SERA, K., *see* KAJI . . . 142 (1977) 21
SERGIAMPIETRI, F., *see* CERRI . . . 141 (1977) 207
SERRA, G., *see* AKIMOV . . . 147 (1977) 329
SESSOMS, A. L., *see* HOLCOMB . . . 144 (1977) 597
SETTLES, R., *see* COFFEY . . . 150 (1978) 377
SEXTRO, R. G., *see* ZEBELMAN . . . 141 (1977) 439
SEYBOTH, P., *see* ECKARDT . . . 143 (1977) 235
SHAAT, E. A. M., *see* RADA . . . 145 (1977) 283
SHAFRANOV, M. D., *see* FILATOVA . . . 143 (1977) 17
SHAFRIR, N. H., *see* KENIGSBERG . . . 148 (1978) 605
SHAFROTH, S. M., *see* WILLIS . . . 142 (1977) 317
SHAHANI, M. G., *see* KAMBOJ . . . 148 (1978) 57
SHAKER, M. O., *see* MORSY . . . 146 (1977) 321
SHALEV, S., Gamma-ray spectrometry with mercuric iodide detectors with application to medical imaging . . . 150 (1978) 79
SHANI, G. and M. COJOCARU, A comparison of two methods of pulse-shape discrimination for alpha-gamma separation with trans-stilbene . . . 146 (1977) 531
SHARE, G. H., J. D. KURFESS and R. B. THEUS, Pulse-shape discrimination of high-energy neutrons and gamma rays in NaI(Tl) . . . 148 (1978) 531
SHARMA, D., *see* KAMBOJ . . . 148 (1978) 57
SHARMA, N. D., *see* GUPTA . . . 143 (1977) 407
SHAW, JR., R. W., *see* WILLIS . . . 142 (1977) 67
SHAW, JR., R. W., *see* WALTER . . . 142 (1977) 181
SHEHATA, M. T., *see* KELLY . . . 149 (1978) 563
SHEPANSKI, J. R., *see* CASTILLO . . . 144 (1977) 27
SHERWIN, A. G., *see* MILES . . . 146 (1977) 503
SHIBATA, K., *see* HIGACHI . . . 150 (1978) 387
SHIBATA, T., *see* KANDA . . . 148 (1978) 535
SHIMOMURA, T., *see* IMANISHI . . . 150 (1978) 131
SHINO, K., *see* IMANISHI . . . 150 (1978) 131
SHINOHARA, T., *see* IMANISHI . . . 150 (1978) 131
SHIOKAWA, T., *see* KAJI . . . 142 (1977) 21
SHIOKAWA, T., T. C. CHU, V. R. NAVARRETE, H. KAJI, G. IZAWA, K. ISHII, S. MORITA and H. TAWARA, A study on proton-induced X-ray analysis and its application to environmental samples . . . 142 (1977) 199
SHIRAFUJI, J., *see* TAGUCHI . . . 150 (1978) 43
SHIZUMA, K., Analyses of monochromatic gamma-ray and annihilation radiation spectra obtained with Ge(Li) detectors . . . 150 (1978) 447
SHMID, M., Y. NIR-EL, G. ENGLER and S. AMIEL, An efficient surface ionization integrated target-ion source for alkaline earth elements (*Letter to the Editor*) . . . 144 (1977) 601
SHOSA, D. W., *see* CZIRR . . . 145 (1977) 465
SHROY, R. E., H. W. KRAMER, K. W. JONES, J. S. JACOBSON and L. I. HELLER, Determination of Fluorine in Food Samples by the $^{19}F(p, p'\gamma)^{19}F$ Reaction . . . 149 (1978) 313
SHULTIS, J. K., *see* LINDAHL . . . 144 (1977) 317
SHUVALOV, R. S., *see* DAVYDOV . . . 145 (1977) 267
SIEGERT, G., *see* FINCH . . . 142 (1977) 539
SIEGERT, G., *see* FIEDLER . . . 147 (1977) 35
SIEJKA, J., *see* AMSEL . . . 149 (1978) 705
SIEJKA, J., *see* AMSEL . . . 149 (1978) 713
SIFFERT, P., *see* PONPON . . . 149 (1978) 647
SIFFERT, P., Current possibilities and limitations of cadmium telluride detectors . . . 150 (1978) 1
SIFFERT, P., B. RABIN, H. Y. TABATABAI and R. STUCK, Extension of the depletion layer in cadmium telluride nuclear radiation detectors . . . 150 (1978) 31

SIFFERT, P., *see* MULLER **150** (1978) 97
SIGMUND, P., J. HEINEMEIER, F. BESENBACHER, P. HVELPLUND and H. KNUDSEN, Small-angle multiple scattering of ions in the screened-Coulomb region. III. Combined angular and lateral spread **150** (1978) 221
SIGNARBIEUX, C., *see* GUET **150** (1978) 189
SIGNORINI, C., *see* RICCI **146** (1977) 93
SIGNORINI, C., *see* MORANDO **146** (1977) 311
SIGNORINI, C., *see* BATTISTUZZI **146** (1977) 481
SILVA, R. J., N. TRAUTMANN, M. ZENDEL, P. F. DITTNER, E. STENDER and H. AHRENS, A gas-jet recoil-transport system for fission products and its application to a continuous chemical separation procedure in the gas phase **147** (1977) 371
SILVERMAN, P. J., *see* ZUHR **149** (1978) 349
SILVESTRINI, V., *see* ASH **148** (1978) 431
SIMION, V., *see* BERCEANU **146** (1977) 319
SIMON, M., *see* CHESHIRE **141** (1977) 219
SIMONI, L., *see* BACILIERI **145** (1977) 255
SIMONOVIĆ, J., J. VUKOVIĆ and R. ANTANASIJEVIĆ, Alpha autoradiography by cellulose nitrate layer **147** (1977) 141
SIMONS, D. G., *see* BRENNAN **149** (1978) 143
SIMPSON, A. E. and N. A. DYSON, Quantitative (p, x) analysis of iron and minor elements in biological material *(Letter to the Editor)* **146** (1977) 473
SINGH, D., *see* BURGKHARDT **141** (1977) 363
SINGH, D., B. BURGKHARDT and E. PIESCH, A passive neutron spectrometer and dosimeter using LiF: Mg, Ti thermoluminescent detectors **142** (1977) 409
SINGH, D., *see* BURGKHARDT **148** (1978) 613
SINGH, M., *see* CHO **148** (1978) 415
SINGHAL, R. P., M. W. S. MACAULEY and P. K. A. DE WITT HUBERTS, Folding of proton size in nuclear structure calculations **148** (1978) 113
SINHA, B. K. and R. BHATTACHARYYA, Effect of source preparation technique on the differential angular correlation of the 133-482 keV cascade in ^{181}Ta **143** (1977) 583
SIOSHANSI, P., *see* LODHI **142** (1977) 45
SIOSHANSI, P., A. S. LODHI and H. PAYROVAN, Proton induced X-ray analysis of drinking water samples **142** (1977) 285
SKARESTAD, M., *see* CARRAZ **148** (1978) 217
SKEGG, R., *see* BRYMAN **141** (1977) 573
SKEPPSTEDT, Ö., *see* KEREK **150** (1978) 479
SKÖLD, K., K. CRAWFORD and S. H. CHEN, Inverted geometry TOF spectrometer at the ZING-P pulsed neutron source prototype **145** (1977) 115
SKORKA, S. J., Tandem accelerators **146** (1977) 67
SKORKA, S. J., *see* DUNKEL **146** (1977) 97
SKREBTSOV, G. P., *see* KOLCHIN **150** (1978) 441
SKURNIK, E., *see* GOLDRING **141** (1977) 307
SLAPA, M., P. A. TOVE and G. BOBERG, The characterization of CdTe and HgI_2 crystals and detectors by light spot scanning (LSS) **150** (1978) 55
SLATKIN, D. N. and K. W. JONES, Damage to human blood cells caused by 200 keV triton bombardment **142** (1977) 589
SLAUGHTER, D. R., *see* FRANZ **144** (1977) 253
SLAUGHTER, D. R. and D. W. RUEPPEL, Calibration of a dePangher long counter from 2 keV to 19 MeV **145** (1977) 315
ŠLAUS, I., *see* KOVAČEVIČ **148** (1978) 291
SLOAN, T., *see* BARBER **145** (1977) 453
SLOAN, W. R. and G. L. WOODRUFF, Frequency filtering of proton-recoil data **150** (1978) 253
SMATHERS, J. E., *see* KNOWLES **147** (1977) 119
SMIRNOV, V. A., *see* BASILADZE **146** (1977) 587
SMIRNOV, V. I., *see* GAEGELER **150** (1978) 173
SMITH, A. C., *see* RADA **145** (1977) 283
SMITH, A. C. and M. G. THOMPSON, The Durham extensive air shower array – II: Data analysis **145** (1977) 289
SMITH, A. C., The Durham air shower array – III: Evaluation of the array's response to showers **148** (1978) 521
SMITH JR., H. V. and R. G. LOTT, A high temperature, ultra high vacuum facility for heavy ion simulation of neutron radiation damage to potential reactor materials **143** (1977) 125
SMITH, I. L., *see* GHIDINI **147** (1977) 313
SMITH, K. M., *see* MACLEOD **143** (1977) 181
SMITH, W., *see* BARBER **145** (1977) 453
SNELL, A. H., *see* STOKSTAD **141** (1977) 499
SÖFFGE, F., A neutron scattering chamber with a high temperature resolution **142** (1977) 399
SOLOMOS, E., A simple automatic centering system for bubble chamber film measuring and premeasuring tables . **144** (1977) 141
SOMOGYI, G., A spatial track formation model and its use for calculating etch-pit parameters of light nuclei **147** (1977) 11
SOMOGYI, G., I. HUNYADI, E. KOLTAY and L. ZOLNAI, On the detection of low-energy ^{4}He, ^{12}C, ^{14}N, ^{16}O ions in Pc foils and its use in nuclear reaction measurements **147** (1977) 287

Sona, P., In-beam measurements of internal conversion coefficients . . . 146 (1977) 193
Sonobe, B. I., *see* Watson . . . 142 (1977) 311
Sonoda, M., *see* Mori . . . 141 (1977) 383
Sood, D. K., *see* Agrawal . . . 149 (1978) 425
Sørensen, G., *see* Whitton . . . 149 (1978) 743
Sotobayashi, T., *see* Hishimoto . . . 150 (1978) 509
Soukup, J., J. M. Cameron, S. T. Lam and G. C. Neilson, A fast neutron production facility using a low temperature tritium gas target . . . 141 (1977) 409
Sourkes, A. M., M. S. de Jong, C. A. Goulding, W. T. H. van Oers, E. A. Ginkel, R. F. Carlson, A. J. Cox and D. J. Margaziotis, Proton loss by nuclear inelastic interactions in CsI, NaI, NE102, NE213 and stilbene . . . 143 (1977) 589
Southworth, F. H., *see* Miley . . . 144 (1977) 9
Spahn, G., *see* Holder . . . 148 (1978) 235
Sparrow, J. H. and C. E. Dick, Pulsed high intensity monoenergetic low energy X-ray source and absolute X-ray monitor . . . 141 (1977) 283
Spear, R. H., *see* Esat . . . 141 (1977) 405
Spear, R. H., D. C. Kean, M. T. Esat, A. M. R. Joye and M. P. Fewell, Energy calibration of the A.N.U. 14Ud pelletron accelerator . . . 147 (1977) 455
Specht, H. J., *see* Glässel . . . 141 (1977) 111
Specht, H. J., *see* Gaukler . . . 141 (1977) 115
Specht, H. J., *see* Just . . . 148 (1978) 283
Specht, H. J., *see* Ulfert . . . 148 (1978) 369
Specht, J. R., *see* Holt . . . 141 (1977) 125
Sperduto, A., *see* Tsoupas . . . 148 (1978) 93
Sperr, P., *see* Chalupka . . . 150 (1978) 209
Špiler, F., *see* Kregar . . . 142 (1977) 495
Spinka, H., *see* Geaga . . . 141 (1977) 263
Spitz, R., *see* Engel . . . 142 (1977) 525
Spowart, A. R., *see* Fairley . . . 150 (1978) 159
Spurný, F. and K. Turek, Fast neutron dosimetry by means of different solid state nuclear track detectors . . . 147 (1977) 143
Squier, G. T. A., *see* Roberts . . . 144 (1977) 369
Squires, D. B., *see* Kelly . . . 149 (1978) 563
Staab, E., *see* Girnius . . . 143 (1977) 505
Stabnikov, M. V., *see* Bakanov . . . 144 (1977) 99
Stähler, J., *see* Hubricht . . . 144 (1977) 359
Stamatović, A., *see* Antanasijević . . . 147 (1977) 139
Stanga, R., *see* Fucci . . . 147 (1977) 587
Stangeby, P. C., *see* De Leeuw . . . 145 (1977) 119
Stanton, G. W., J. C. Dore and N. J. Hance, A note on containers for neutron diffraction studies of chemically-reactive liquids . . . 141 (1977) 259
Starke, K., *see* Ellinger . . . 141 (1977) 137
Staudte, R., *see* Schott . . . 147 (1977) 63
Stearns, J. W., *see* Berkner . . . 143 (1977) 157
Stefanini, A., *see* Fucci . . . 147 (1977) 587
Stefanini, A. M., *see* Battistuzzi . . . 146 (1977) 481
Steffens, E., W. Dreves, H. Ebinghaus, M. Köhne, F. Fiedler, P. Egelhof, G. Engelhardt, D. Kassen, R. Schäfer, W. Weiss and D. Fick, The source for a vector polarized lithium-6 beam at the Heidelberg EN-tandem . . . 143 (1977) 409
Steffens, E., *see* Kassen . . . 150 (1978) 333
Steinberger, J., *see* Holder . . . 148 (1978) 235
Steiner, U., *see* Hasselmann . . . 142 (1977) 163
Steiner, U., *see* Koenig . . . 142 (1977) 225
Steiner, U., *see* Scheer . . . 142 (1977) 333
Steinhauer, L. C., Laser solenoid radiation test facility . . . 145 (1977) 157
Steinhauser, U., *see* Fiedler . . . 147 (1977) 35
Stelzhammer, J., *see* Dabrowski . . . 150 (1978) 25
Stender, E., *see* Silva . . . 147 (1977) 371
Stengl, G., *see* Chalupka . . . 144 (1977) 167
Stengl, G., *see* Chalupka . . . 150 (1978) 209
Stetz, A., Comment on the resolution of NaI counter telescopes . . . 143 (1977) 405
Stetz, A. W., *see* Cameron . . . 145 (1977) 405
Stetz, W., *see* Cameron . . . 143 (1977) 399
Steward, V. W., *see* Curry . . . 147 (1977) 541
Stewart, N. M., *see* Amsler . . . 144 (1977) 401
Stewart, T. R., *see* Rada . . . 145 (1977) 283

STEYERL, A., *see* HERDIN **148** (1978) 353
STIPČIČ, N., *see* KOVAČEVIČ **148** (1978) 291
STOCK, R., *see* KOENIG **142** (1977) 225
STOCK, R., *see* KRAUSE **143** (1977) 467
STOCK, R., *see* JUNGHANS **144** (1977) 293
STÖCKMANN, H. J., A new method to analyse composite exponential decay curves **150** (1978) 273
STOKSTAD, R. G., D. C. HENSLEY and A. H. SNELL, A position sensitive ΔE–E telescope **141** (1977) 499
STRACHOTA, J., *see* ŠEDA **144** (1977) 557
STRANIERI, A., *see* MORANDO **146** (1977) 311
STRELKOV, A. V., *see* KOSVINTSEV **143** (1977) 133
STRIGL, A. and H. Bildstein, Mass-spectrometric determination of gases in individual coated HTR fuel particles. Part I: Set-up, procedure and performance **142** (1977) 507
STRIGL, A. and E. PROKSCH, Mass-spectrometric determination of gases in individual coated HTR fuel particles. Part II: Optimum choice of heating and crushing conditions **142** (1977) 513
STRIGL, A., Mass-spectrometric determination of fission gas permeabilities of HTR fuel particle coatings *(Letter to the Editor)* **146** (1977) 607
STRUBIN, P., Clearing electrode control system **141** (1977) 337
STRUCZINSKI, W., *see* FABJAN **141** (1977) 61
STRUZHKO, B. G., *see* DRYAPACHENKO **141** (1977) 153
STUBBS, R. J., *see* ORFORD **146** (1977) 389
STUBBS, R. J. and W. D. WADDOUP, A seven channel gated charge to time converter **146** (1977) 561
STUBBS, R. J., *see* WADDOUP **146** (1977) 569
STUCK, R., *see* PONPON **149** (1978) 647
STUCK, R., *see* SIFFERT **150** (1978) 31
STYLES, R. C., *see* SALTMARSH **145** (1977) 81
SU, C.-S., High temperature diffusion of uranium in refractory metals determined by thermal neutron fission of ^{235}U . **145** (1977) 361
SU, W., *see* CHANG **148** (1978) 561
SUBBOTIN, V. G., *see* GAEGELER **150** (1978) 173
SUGAHARA, R., *see* ONO **141** (1977) 193
SUGAI, I., A new technique for preparation of targets of powdered materials **145** (1977) 409
SUGAI, I., *see* TZENG **150** (1978) 143
SUGANO, K., *see* IMANISHI **150** (1978) 131
SUGIYAMA, H., *see* HISHIMOTO **150** (1978) 509
SUGIYAMA, S., *see* YAMAZAKI **144** (1977) 515
SUJKOWSKI, Z., *see* KEREK **150** (1978) 479
SULEIMAN, M., *see* BÖCK **148** (1978) 43
SUNDQVIST, B., *see* GÖNCZI **149** (1978) 337
SUTER, H., *see* HOLDER **148** (1978) 235
SUTHERLAND, R. I., *see* CASTILLO **144** (1977) 27
SUZUKI, A., *see* ONO **141** (1977) 193
SUZUKI, K., M. MISAWA, K. KAI and N. WATANABE, Time-of-flight pulsed neutron diffraction of liquids using an electron linac **147** (1977) 519
SUZUKI, T., *see* H. BABA **145** (1977) 517
SUZUKI, Y., *see* IMANISHI **150** (1978) 131
SVIRIDOV, YU, M., see BUGORSKY **146** (1977) 367
SWITKOWSKI, Z. E., *see* GREGG **144** (1977) 613
SWITKOWSKI, Z. E., *see* HEGGIE **147** (1977) 425
SYLIN, G., *see* BAUWENS **143** (1977) 497
SZABÓ, P. P., Low exposure rate dependence of $CaSO_4$:Dy TLDs *(Letter to the Editor)* **147** (1977) 451
SZTARICSKAI, T., *see* VÁRNAGY **141** (1977) 489
SZTARKIER, J., *see* KEREK **150** (1978) 479
SZYMANSKI, Z., High-spin nuclear rotations **146** (1977) 183
SZYMCZAK, W., *see* MÜLLER **149** (1978) 239
SZYMCZYK, W. M., *see* DABROWSKI **150** (1978) 25

TABATA, T. and R. ITO, Interpolation formulas for quantities related to radiative energy-loss of electrons **146** (1977) 435
TABATABAI, H. Y., *see* SIFFERT **150** (1978) 31
TACZANOWSKI, S., Correction for the neutron and gamma attenuation effects in 14 MeV neutron activation analysis **144** (1977) 299
TAGLAUER, E., U. BEITAT and W. HEILAND, Investigation of Ion Impact Desorption of Atoms and Molecules by Low Energy Ion Scattering (ISS) **149** (1978) 605
TAGUCHI, T., J. SHIRAFUJI and Y. INUISHI, Gamma and electron radiation effects in CdTe **150** (1978) 43
TAIT, I. D., *see* BREARE **143** (1977) 41
TAIT, I. D., *see* BREARE **143** (1977) 49

TAKAGI, A., *see* MORI **141** (1977) 383
TAKAHASHI, K., *see* ONO **141** (1977) 193
TAKAHASHI, T., *see* HIGASHI **150** (1978) 387
TAKAHASHI, T., *see* KONNO **150** (1978) 517
TAKAI, M., K. GAMO, H. YAGITA, K. MASUDA, S. NAMBA and A. MIZOBUCHI, Use of Ion-Induced X-Rays to Locate Ion Implanted Impurities in Gallium Arsenide **149** (1978) 457
TAKIUE, M. and H. ISHIKAWA, Thermal neutron reaction cross section measurements for fourteen nuclides with a liquid scintillation spectrometer **148** (1978) 157
TANAKA, E. M., *see* MAFRA **143** (1977) 117
TANAKA, S., *see* SASAMOTO **148** (1978) 395
TANGUY, P., *see* DURAND **143** (1977) 561
TANGUY, P. et A. DURAND, Variations d'emittances d'un faisceau lors de son guidage par un système de lentilles quadripolaires **148** (1978) 149
TAPE, J. W., *see* CANADA **142** (1977) 609
TARAGIN, M. F., Simple digital based triangele wave generator for Mössbauer spectroscopy *(Letter to the Editor)* . **150** (1978) 607
TARANTIN, N. I., *see* IVANOV **147** (1977) 333
TARANTIN, N. I., *see* KABACHENKO **147** (1977) 337
TARAS, P., *see* AZUELOS **150** (1978) 427
TARLÉ, G., *see* AHLEN **143** (1977) 513
TARLÉ, G., *see* AHLEN **147** (1977) 321
TARTE, G., *see* MAREL **141** (1977) 43
TARTE, G., *see* HOLDER **148** (1978) 235
TATARKIEWICZ, J., Distributions of energetic proton ranges in silicon as determined by the Monte Carlo method . . . **146** (1977) 447
TAWARA, H., *see* KAJI **142** (1977) 21
TAWARA, H., *see* SHIOKAWA **142** (1977) 199
TAYA, S., K. TOKIGUCHI, I. KANOMATA and H. MATSUDA, A triple focusing mass separator **150** (1978) 165
TAYLOR, A. R., *see* HERDIN **148** (1978) 353
TAYLOR, B. G., *see* ANDRESEN **146** (1977) 391
TAYLOR, D. G., *see* CUNNINGHAM **147** (1977) 471
TAYLOR, R. D., *see* MIGLIORI **145** (1977) 397
TAYURSKI, V. A., *see* CHIRIKOV **144** (1977) 129
TAZAWA, M., *see* YAMADA **146** (1977) 457
TEJESSY, W., *see* LEHRAUS **141** (1977) 29
TEMPLE, W., *see* FREEMAN **145** (1977) 473
TENORIO, D., *see* HEITZ **149** (1978) 483
TER-AKOPIAN, G. M., *see* GAEGELER **150** (1978) 173
TERAMOTO, Y., *see* HIGASHI **150** (1978) 387
TEREKHOV, G. I., *see* IGNATOVICH **148** (1978) 585
TERREAULT, B., *see* ZIEGLER **149** (1978) 19
TERREAULT, B., *see* L'ECUYER **149** (1978) 271
TESCH, K., *see* DINTER **143** (1977) 349
TEUCHERT, W., *see* SCHERM **143** (1977) 77
THEOBALD, J. P., *see* MUTTERER **144** (1977) 159
THEODORSSON, P., *see* BØTTER-JENSEN **144** (1977) 529
THEUS, R. B., *see* SHARE **148** (1978) 531
THIEBERGER, P., Use of magnetic suppression on inclined field acceleration tubes *(Letter to the Editor)* **150** (1978) 327
THIEBERGER, P., Beam quality restoration through gas prestripping of molecular ions in tandem accelerators *(Letter to the Editor)* **150** (1978) 329
THIEL, K. and G. DAMM, A sensitive mapping technique for bismuth using α-particle tracks **147** (1977) 105
THIELHEIM, K. O., *see* ADLER **146** (1977) 601
THIELMANN, R., *see* KOENIG **142** (1977) 225
THIERENS, H., *see* DE CLERCQ **144** (1977) 593
THIERENS, H., D. DE FRENNE, E. JACOBS, A. DE CLERCQ, P. D'HONDT and A. J. DERUYTTER, Study of the fission products of ^{235,238}U by irradiation with 25 MeV bremsstrahlung **146** (1977) 330
THIESSEN, H. A., *see* HIEBERT **142** (1977) 467
THOMAS, B. J., *see* VARTSKY **145** (1977) 321
THOMAS, D. J., *see* PALMER **146** (1977) 328
THOMAS, E. W., *see* RAUSCH **149** (1978) 511
THOMAS, G. E., *see* LIVINGSTON **148** (1978) 125
THOMAS, J. P. and M. Fallavier, Lithium Ion Production and Use for Backscattering Analysis in Aluminum and Aluminum Oxide Media **149** (1978) 169
THOMAS, J. P., J. M. MACKOWSKI and J. TOUSSET, Kinetics of Drift and Thermal Diffusion of Gold Electrodes into Amorphous Semiconductor Thin Films **149** (1978) 265

THOMPSON, A., *see* O'SULLIVAN **147** (1977) 195
THOMPSON, A., *see* FOWLEV **147** (1977) 201
THOMPSON, A. S., *see* FROELICH **143** (1977) 473
THOMPSON, D. A., *see* CHU **149** (1978) 115
THOMPSON, J. C., *see* BARBER **145** (1977) 453
THOMPSON, M. G., *see* RADA **145** (1977) 283
THOMPSON, M. G., *see* SMITH **145** (1977) 289
THOMPSON, P., *see* EISBERG **146** (1977) 487
THOMSON, G. B., *see* ZYCH **144** (1977) 183
THORNGATE, J. H., *see* ABD EL-RAZEK **141** (1977) 477
THORNGATE, J. H. and M. M. ABD EL-RAZEK, Limits to the applicability of commonly used pulse-shape figures of merit and possible alternative measures of performance **144** (1977) 209
THUM, F., *see* HOFER **149** (1978) 535
THUN, J. E., *see* FAHLANDER **146** (1977) 329
TIRINGER, M., *see* MARTINČIČ **147** (1977) 513
TITTEL, K., *see* HOLDER **148** (1978) 235
TLACZALA, W., *see* BASILADZE **145** (1977) 565
TODOROVIĆ, Ž., *see* ANTANASIJEVIĆ **147** (1977) 139
TODOROVIĆ, Ž., *see* GRABEŽ **147** (1977) 267
TOEPFER, A. J., *see* RAMIREZ **145** (1977) 179
TOKIGUCHI, K., *see* TAYA **150** (1978) 165
TOLFREE, D. W. L., *see* BARBER **145** (1977) 453
TOMBRELLO, T. A., *see* GREGG **144** (1977) 613
TOMIMASU, T., *see* YAMAZAKI **144** (1977) 515
TORNOW, W. and G. MERTENS, Multiple scattering effects in fast neutron polarization experiments using high-pressure helium–xenon gas scintillators as analyzers **146** (1977) 545
TORRE, P., *see* PINELLI **150** (1978) 497
TORTI, R. P., *see* CHENEVERT **145** (1977) 149
TOSELLO, C., *see* BALLINI **146** (1977) 315
TOSHIOKA, T., *see* IMANISHI **150** (1978) 131
TOULEMONDE, M., *see* KRAUS **146** (1977) 312
TOVE, P. A., *see* PETERSSON **143** (1977) 525
TOVE, P. A., *see* SLAPA **150** (1978) 55
TRASATTI, L., *see* ASH **148** (1978) 431
TRAUTMANN, N., *see* KURCEWICZ **146** (1977) 613
TRAUTMANN, N., *see* SILVA **147** (1977) 371
TRAVERSE, A. et P. BERTHE, Réalisation et mise au point d'un ensemble de coincidences γ–γ biparamétrique; Application: mesures précises d'intensité de transition γ **148** (1978) 317
TRAXEL, K., *see* NOBILING **142** (1977) 49
TRAXEL, K., *see* BOSCH **149** (1978) 665
TREADWAY, D. A., *see* GEAGA **141** (1977) 263
TREASURE, M. W., *see* RADA **145** (1977) 283
TREGLIO, J. R., A study of the feasibility of fusion power with negligible neutron productions **141** (1977) 353
TREGLIO, J. R., Conditions for a boron fusion reactor in the MeV range **144** (1977) 65
TRIBOULET, R., *see* DABROWSKI **150** (1978) 25
TRICKER, M. J., L. A. ASH and T. E. CRANSHAW, A neglected mechanism in the interpretation of conversion electron Mössbauer spectra **143** (1977) 307
TRIPARD, G. E., *see* RUDDY **147** (1977) 25
TRIPARD, G. E., *see* KNOWLES **147** (1977) 119
TRIPARD, G. E., *see* KNOWLES **147** (1977) 157
TRIPIER, J. and M. DEBEAUVAIS, Calibration of two plastic detectors and application on study of heavy cosmic rays . **147** (1977) 221
TSAN UNG CHAN, M. AGARD, J. F. BRUANDET, A. GIORNI, F. GLASSER, J. P. LONGEQUEUE and C. MORAND, Yrast states in ^{62}Cu **146** (1977) 314
TSENG, W. F., J. GYULAI, T. KOJI, S. S. LAU, J. ROTH and J. W. MAYER, Investigation of Dislocations by Backscattering Spectrometry and Transmission Electron Microscopy **149** (1978) 615
TSERRUYA, I., *see* GAUKLER **141** (1977) 115
TSERRUYA, T., *see* BRESKIN **148** (1978) 275
TSIVINSKY, A. I., *see* CASTILLO **144** (1977) 27
TSONG, I. S. T. and R. B. LIEBERT, The Use of Sputter-Induced Emission Spectroscopy for the Analysis of Hydrogen in Solids **149** (1978) 523
TSOUPAS, N., E. COSMAN, A. SPERDUTO, G. YOUNG, H. ENGE and M. SALOMAA, In-flight mass separation of ^{205}Rn, ^{206}Rn and ^{207}Rn fusion recoils from the ^{197}Au(^{14}N, xn) reaction using an energy–mass spectrograph **148** (1978) 93
TSYGANOV, E. N., *see* FILATOVA **143** (1977) 17

Tu, K. N., *see* Andersen **149** (1978) 247
Turek, K., *see* Spurný **147** (1977) 143
Turkenburg, W. C., *see* Hoonhout **149** (1978) 355
Turlay, R., *see* Marel **141** (1977) 43
Turlay, R., *see* Holder **148** (1978) 235
Turner, J. F., *see* Dearnaley **149** (1978) 253
Turos, A., L. Wielunski, M. Wielunski and B. Wojtowicz-Natanson, Channeling Analysis of Disorder Structure in Neon Implanted Silicon **149** (1978) 421
Tuyn, J. W. N., *see* Hassib **147** (1977) 163
Tuyn, J. W. N., *see* Dutrannois **147** (1977) 177
Tverskoy, M. G., *see* Bakanov **144** (1977) 99
Twin, P. J., *see* Jones **146** (1977) 313
Tykesson, P., *see* Heinemeier **141** (1977) 183
Tzeng, H-S., J-Y. Liu, I. Sugai and Y. C. Liu, Preparation of thin red-phosphorus **150** (1978) 143

Ueno, K., Lepton pair photoproduction in a thick target **146** (1977) 347
Ueta, N., *see* Salém **146** (1977) 320
Uglekov, V. Ya., *see* Bugorsky **146** (1977) 367
Uhlhorn, C. D., *see* Raith **142** (1977) 39
Uhlhorn, C. D., *see* Wilde **149** (1978) 675
Uhrmacher, M., *see* Brandolini **146** (1977) 326
Ukai, K., *see* Imanishi **150** (1978) 131
Ulbricht, J., *see* Arnold **143** (1977) 441
Ulbricht, J., *see* Arnold **143** (1977) 457
Ulbricht, J., *see* Krause **143** (1977) 467
Ulfert, G., D. Habs, V. Metag and H. J. Specht, Lifetime measurements of nuclear levels with the charge plunger technique **148** (1978) 369
Ullmaier, H., R. Behrisch and H. H. Barschall, High energy – high intensity neutron sources for fusion technology and radiotherapy applications **145** (1977) 1
Umiastowski, K., M. Buniak, J. Gyurcsak, P. Małoszewski, Gamma-ray absorption coefficient for non-homogeneous materials **141** (1977) 347
Uralsky, D. V., *see* Filatova **143** (1977) 17
Uyttenhove, J., D. Segers, M. Dorikens and L. Dorikens-Vanpraet, Electro-optical stabilization of a subnanosecond lifetime spectrometer **141** (1977) 549
Uzunov, I., *see* Kritidis **143** (1977) 299

Vacher, J., *see* Moszyński **141** (1977) 319
Vader, R. J. and O. C. Dermois, A stepping motor driven ion beam scanner **144** (1977) 423
Valenduc, G., *see* Bosman **148** (1978) 363
Valkovic, V., Proton-induced X-ray emission: applications in medicine **142** (1977) 151
Valladon, M., *see* Huber **149** (1978) 543
Valladon, M., *see* Ishii **150** (1978) 213
Vancov, I., *see* Kamburov **143** (1977) 537
Van der Kam, P. M. A., R. D. Vis and H. Verheul, The influence of matrix effects on absolute analysis using PIXE **142** (1977) 55
Van der Kam, P. M. A., *see* Vis **142** (1977) 159
Van Der Schaaf, A., *see* Beetz **145** (1977) 353
Van Espen, P., H. Nullens and F. Adams, A computer analysis of X-ray fluorescence spectra **142** (1977) 243
Van Espen, P., H. Nullens and F. Adams, A method for the accurate description of the full-energy peaks in non-linear least-squares analysis of X-ray spectra **145** (1977) 579
Van Heusden, G. C. L. and S. S. Klein, On-line determination of acceptances and emittances of the beam guiding system of the Eindhoven AVF-cyclotron **141** (1977) 413
Van Hove, L., What do physicists expect from higher energies? **150** (1978) 113
Van Nieuwland, J. M., N. Hazewindus and A. Baan, The central region of the SIN injector cyclotron **142** (1977) 339
Van Oers, W. T. H., *see* Cameron **143** (1977) 399
Van Oers, W. T. H., *see* Sourkes **143** (1977) 589
Van Oers, W. T. H., *see* Goulding **148** (1978) 5
Vanoli, F., *see* Ash **148** (1978) 431
Van Rinsvelt, H. A., R. D. Lear and W. R. Adams, Human diseases and trace elements: investigation by proton-induced X-ray emission **142** (1977) 171
Van Rinsvelt, H. A., *see* Guffey **149** (1978) 489
Varier, K. M., *see* Kane **147** (1977) 507
Várnagy, M., L. Vasváry, E. Gyarmati, S. Juhász, T. Scharbert and T. Sztaricskai, A jumping spark counter for various applications; rapid determination of its counting parameters **141** (1977) 489

VARTSKY, D., B. J. THOMAS and W. V. PRESTWICH, Fractional charge collection technique for pile-up reduction – counting low intensity radiation in presence of intense gamma-ray and neutron background **145** (1977) 321
VASCOTTO, A., *see* BIRSA **146** (1977) 357
VASVÁRY, L., *see* VÁRNAGY **141** (1977) 489
VATER, P., H. J. BECKER, R. BRANDT and H. FREIESLEBEN, Multifragment decay reactions induced by heavy ions and studied with mica track detectors **147** (1977) 271
VÁVRA, J., *see* MICHALEC **143** (1977) 121
VÁVRA, J., *see* AMSLER **144** (1977) 401
VEDRENNE, G., *see* PARLIER **148** (1978) 483
VEESER, L. R., *see* DAVIS **149** (1978) 41
VEILLET, J. J., *see* ROHRBACH **141** (1977) 229
VENTURA, L., *see* CENTRO **147** (1977) 599
VERBEEK, H., *see* ECKSTEIN **149** (1978) 599
VERGNES, M., Tandem physics in Orsay **146** (1977) 81
VERHEUL, H., *see* VAN DER KAM **142** (1977) 55
VERHEUL, H., *see* VIS **142** (1977) 159
VERHEUL, H., *see* KETEL **146** (1977) 335
VERMEULEN, F. E., *see* MCPHERSON **148** (1978) 1
VESELOVA, G. V., *see* AKIMOV **147** (1977) 329
VIALLE, M., *see* PARIZET **143** (1977) 363
VIANDEN R. and E. N. KAUFMANN, Recent Lattice Location Results for Implanted Impurities in Beryllium Metal . . **149** (1978) 393
VILLA, F. and L. C. WANG, Recording streamer chamber tracks with charge coupled devices **144** (1977) 533
VILLA, F., *see* PELEKSKY **148** (1978) 457
VILLARI, A., *see* BIRSA **146** (1977) 357
VINCE, J., *see* DEARNALEY **149** (1978) 253
VINCELLI, M. L., *see* FUCCI **147** (1977) 587
VINCIGUERRA, D., *see* ILLARI **143** (1977) 605
VINCOUR, J. and P. BÉM, Multiple scattering of fast charged particles in silicon **148** (1978) 399
VIS, R. D., *see* VAN DER KAM **142** (1977) 55
VIS, R. D., P. M. A. VAN DER KAM and H. VERHEUL, Elemental trace analysis in serum using proton-induced X-ray fluorescence **142** (1977) 159
VISURI, P., *see* BÄRS **143** (1977) 199
VITT, B., *see* LOTZ **147** (1977) 149
VIVIEN, J. P., *see* BOZEK **146** (1977) 327
VLASTOU, R., *see* ENGLAND **147** (1977) 443
VODOPIANOV, A. S., *see* FILATOVA **143** (1977) 17
VOET, L., *see* SCHEER **142** (1977) 333
VOGEL, J., *see* MCGERVEY **143** (1977) 435
VOGEL, J. S., *see* ZYCH **144** (1977) 183
VOICULESCU, G,. *see* BERCEANU **146** (1977) 319
VOLKOV, A. A., *see* BUGORSKY **146** (1977) 367
VOLTA, R., *see* COLLA **148** (1978) 489
VONACH, H., *see* CHALUPKA **144** (1977) 167
VON DINCKLAGE, R.-D., *see* SCHMIDT-OTT . . . . . **141**[3](1977) 553
VON RUDEN, W., *see* FIELD **143** (1977) 227
VON WITSCH, W., *see* ETTLING **148** (1978) 299
VORBRUGG, W., Critical investigations on the methods determining the degree of polarization of subthermal neutrons . **145** (1977) 311
VORONOV, S., *see* AKIMOV **147** (1977) 329
VOVENKO, A. S., *see* BUGORSKY **146** (1977) 367
VUKOVIĆ, J., *see* SIMONOVIĆ **147** (1977) 141
M. VYSOČANSKÝ, M., *see* HOLDER **148** (1978) 235

WACH, W., *see* WITTMAACK **143** (1977) 7
WACH, W. and K. WITTMAACK, Comparison of Xenon Retention in Ion Implanted Silicon dıOxide and Oxygen-Doped Silicon **149** (1978) 259
WADA, M., *see* CHUANG **150** (1978) 313
WADDELL, C. N., *see* EISBERG **146** (1977) 487
WADDOUP, W. D., *see* ORFORD **146** (1977) 389
WADDOUP, W. D., *see* STUBBS **146** (1977) 561
WADDOUP, W. D. and R. J. STUBBS, An eight channel fast scaler **146** (1977) 569
WADSWORTH, R., *see* JONES **146** (1977) 313
WAGNER, N. K., *see* R. J. WAGNER **149** (1978) 659

WAGNER, R. J., S. S. LAU, R. P. KÜLLEN, D. L. LILE and N. K. WAGNER, Analysis of Anodiacally Oxidized InP by MeV $^4He^+$ Channeling Effect Measurements and Auger Electron Spectrometry . . . **149** (1978) 659
WAGNER, V., *see* SCHERM . . . **143** (1977) 77
WAHEED, A. and M. JURIĆ, Fast stable particles from light nuclei of emulsion following the interaction of 1.5 GeV/*c* K^- mesons . . . **147** (1977) 239
WAHEED, A., M. JURIĆ and V. ZLATAROV, Probability distribution for K^-p and K^-n channels in the interaction of 1.5 GeV/*c* K^- mesons in light emulsion nuclei . . . **147** (1977) 245
WAHL, H., *see* HOLDER . . . **148** (1978) 235
WAKUTA, Y., *see* MORI . . . **141** (1977) 383
WAKUTA, Y., Y. KOGA, H. HASUYAMA and H. YAMAMOTO, Effect of dissociator nozzle temperature on polarized atomic hydrogen beam intensities . . . **147** (1977) 461
WALD, F. V. and G. ENTINE, Crystal growth of CdTE for γ-ray detectors . . . **150** (1978) 13
WALDREN, D., *see* FETT . . . **144** (1977) 109
WALKER, R. P., *see* CONNELL . . . **144** (1977) 453
WALKER, R. P., *see* CUNNINGHAM . . . **147** (1977) 471
WALLICK, W. O., R. G. KENYON and H. J. LUBATTI, A comparison of charge coupled devices and film sensitivities . . **146** (1977) 403
WALTER, G., *see* BAUMANN . . . **146** (1977) 308
WALTER, R. L., *see* WILLIS . . . **142** (1977) 67
WALTER, R. L., R. D. WILLIS, W. F. GUTKNECHT and R. W. SHAW, JR., The application of proton-induced X-ray emission to bioenvironmental analyses . . . **142** (1977) 181
WALTER, R. L., *see* WILLIS . . . **142** (1977) 231
WALTER, R. L., *see* WILLIS . . . **142** (1977) 317
WALTER, R. L., *see* LISOWSKI . . . **146** (1977) 477
WALUS, W., *see* KEREK . . . **150** (1978) 479
WANG, L. C., *see* VILLA . . . **144** (1977) 533
WANNBERG, G., *see* EKSTRÖM . . . **148** (1978) 13
WARD, H. A., *see* CASTILLO . . . **144** (1977) 27
WARNER, R. A., *see* EDMISTON . . . **141** (1977) 315
WATANABE, K., *see* IMANISHI . . . **150** (1978) 131
WATANABE, N., *see* SUZUKI . . . **147** (1977) 519
WATANABE, S., *see* OSADA . . . **144** (1977) 353
WATANABE, T., *see* AOYAMA . . . **150** (1978) 203
WÄTJEN, U., *see* HASSELMANN . . . **142** (1977) 163
WÄTJEN, U., *see* KOENIG . . . **142** (1977) 225
WÄTJEN, U., *see* SCHEER . . . **142** (1977) 333
WATKIN, D. C., *see* LEVINS . . . **146** (1977) 517
WATSON, R. L., A. K. LEEPER and B. I. SONOBE, Applications of wavelength-dispersive spectrometry in particle induced X-ray emission analysis . . . **142** (1977) 311
WEBER, G., G. ROBAYE et L. QUAGLIA, Une méthode simple permettant de tester l'homogénéité d'un faisceau de particules chargées accélérées . . . **148** (1978) 13
WEDDIGEN, CH., *see* BESSET . . . **148** (1978) 129
WEHRING, B. W., *see* JOHNSON . . . **145** (1977) 337
WEHRING, B. W., *see* DIIORIO . . . **147** (1977) 487
WEHRING, B. W., *see* INGERSOLL . . . **147** (1977) 551
WEIBRECHT, R., *see* BECKERT . . . **146** (1977) 307
WEISMANN, D., *see* AUMANN . . . **150** (1978) 233
WEISS, W., *see* STEFFENS . . . **143** (1977) 409
WEISS, W., *see* KASSEN . . . **150** (1978) 333
WEITSCH, G. A., *see* ELIAS . . . **141** (1977) 25
WEMMERS, G., *see* ANDERHUB . . . **142** (1977) 595
WENDER, S. A., *see* LISOWSKI . . . **146** (1977) 477
WENG, P.-S. and P.-C. HSU, Concrete shielding for thermoluminescent dosimeter monitoring post to reduce background interference . . . **145** (1977) 433
WENG, P. S., *see* HSU . . . **147** (1977) 453
WERBROUCK, A., *see* GHIDINI . . . **147** (1977) 313
WERREN, D. W., *see* BESSET . . . **148** (1978) 129
WESSELS, B., M. PARROTT, D. ERCEGOVIC, D. JUSTICE and W. MILLER, Absolute excitation energy measurements using an electrostatic analyzer . . . **141** (1977) 157
WEST, G. M., *see* KNOWLES . . . **147** (1977) 157
WESTERBERG, L., D. G. SARANTITES, R. LOVETT, J. T. HOOD, J. H. BARKER, C. M. CURRIE and N. MULLANI, γ-Ray multiplicities from nuclear reactions: Theory, instrumentation and analysis . . . **145** (1977) 295
WESTGAARD, L., *see* CARRAZ . . . **148** (1978) 217

WESTPHAL, G. P., Loss-free counting — A concept for real-time compensation of dead-time and pile-up losses in nuclear pulse spectroscopy *(Letter to the Editor)* . . . **146** (1977) 605
WESTPHAL, P., *see* EDER . . . **141** (1977) 533
WHEALTON, J. H., *see* KIM . . . **141** (1977) 187
WHEATLEY, G. H., *see* BUCK . . . **149** (1978) 591
WHEATLEY, G. H., *see* CRIDER . . . **149** (1978) 701
WHIPPLE, E. T. B., *see* GEAGA . . . **141** (1977) 263
WHITE, C. W., *see* CLARK . . . **149** (1978) 9
WHITE, C. W., *see* ZIEGLER . . . **149** (1978) 19
WHITE, C. W., Ion Induced Optical Emission for Surface and Depth Profile Analysis . . . **149** (1978) 497
WHITE, R. E., *see* NAYLOR . . . **144** (1977) 331
WHITE, R. E., *see* BARKER . . . **150** (1978) 537
WHITEHOUSE, S. B., *see* AMBROSE . . . **145** (1977) 601
WHITTEMORE, A. R., *see* MENASIAN . . . **144** (1977) 49
WHITTEMORE, A. R., *see* FERRER . . . **144** (1977) 51
WHITTON, J. L., G. SØRENSEN and J. S. WILLIAMS, Change in Stoichiometry of Thin Films of Palladium Chloride during Ion Beam Analysis . . . **149** (1978) 743
WIEDERSICH, H., *see* PRONKO . . . **149** (1978) 77
WIELOPOLSKI, L., The Monte Carlo calculation of the average solid angle subtended by a right circular cylinder from distributed sources . . . **143** (1977) 577
WIELUNSKI, L., *see* TUROS . . . **149** (1978) 421
WIELUNSKI, M., *see* TUROS . . . **149** (1978) 421
WIEMAN, H. H. and L. A. ERB, A high-voltage RF deflector for reduction of cyclotron beam repetition rates . . . **142** (1977) 573
WIENHARD, K., *see* JUNGHANS . . . **144** (1977) 293
WIGGERS, L. W. and F. W. SARIS, Displacement of Group III, IV, V and VI Impurities in Si by the Analyzing Beam . **149** (1978) 399
WILDE, H. R., M. ROTH, C. D. UHLHORN and B. GONSIOR, Analysis of the Lateral Distribution of Trace Elements in Biological and Other Materials by Proton-Induced X-Ray Fluorescence Using a Microbeam Scanner . . . **149** (1978) 675
WILDNAUER, K. R., *see* BOIE . . . **149** (1978) 749
WILHELM, H. G., *see* WOLLNIK . . . **144** (1977) 247
WILK, S. F. J., J. S. C. MCKEE and C. P. RANDELL, PIXE work at the University of Manitoba . . . **142** (1977) 33
WILKES, P. B., *see* BARBER . . . **145** (1977) 453
WILKINSON, D. H., Where is the atomic nucleus going? . . . **146** (1977) 143
WILL, G., *see* SCHÄFER . . . **143** (1977) 489
WILLIAMS, D. T., *see* BARBER . . . **145** (1977) 453
WILLIAMS, E. G. H., *see* HOLDER . . . **148** (1978) 235
WILLIAMS, J. G., *see* AZIMI-GARAKANI . . . **147** (1977) 69
WILLIAMS, J. S., The Application of High-Resolution Rutherford Backscattering Techniques to Nearsurface Analysis . . . **149** (1978) 207
WILLIAMS, J. S., *see* CHRISTODULIDES . . . **149** (1978) 219
WILLIAMS, J. S., *see* WHITTON . . . **149** (1978) 743
WILLIAMS, P., *see* ZIEGLER . . . **149** (1978) 19
WILLIAMS, P., R. K. LEWIS, C. A. EVANS, Jr. and P. R. HANLEY, Improvements in the Chemistry of Secondary Ion Mass Spectrometry – Negative Ion Techniques . . . **149** (1978) 567
WILLIAMS, P., *see* LIAU . . . **149** (1978) 623
WILLIAMSON, F. O. and H. U. ZIMMERMANN, A small, low background proportional counter . . . **148** (1978) 231
WILLIS, R. D., R. L. WALTER, R. W. SHAW, Jr. and W. F. GUTKNECHT, Proton-induced X-ray emission analysis of thick and thin targets . . . **142** (1977) 67
WILLIS, R. D., *see* WALTER . . . **142** (1977) 181
WILLIS, R. D. and R. L. WALTER, Computer analysis of proton induced X-ray emission spectra . . . **142** (1977) 231
WILLIS, R. D., R. L. WALTER, B. L. DOYLE and S. M. SHAFROTH, Wavelength-dispersion analysis of PIXE spectra . . **142** (1977) 317
WILLIS, W. J., *see* FABJAN . . . **141** (1977) 61
WILLKOMM, H., *see* JENSEN . . . **147** (1977) 97
WILLUTZKI, H. J., *see* HOLDER . . . **148** (1978) 235
WILSON, D.D., *see* DE MELLO . . . **144** (1977) 43
WINCHESTER, J. W., Sulfur and trace metal relationships in nonurban and marine aerosols studied using proton induced X-ray emission . . . **142** (1977) 85
WINCHESTER, J. W., *see* ORSINI . . . **142** (1977) 91
WINCHESTER, J. W., *see* DESAEDELEER . . . **142** (1977) 97
WINCHESTER, J. W., *see* AHLBERG . . . **149** (1978) 451
WINKLER, R., *see* HÖTZL . . . **150** (1978) 177
WINSBERG, L., The analysis of thick-target thick-catcher nuclear recoil experiments . . . **150** (1978) 465
WINTER, G., *see* BECKERT . . . **146** (1977) 307
WINTERBON, K. B., Electronic energy loss and charge-state fluctuations of swift ions . . . **144** (1977) 311

WIT, H. P., G. HOEKSEMA, L. NIESEN and H. DE WAARD, A multi-purpose velocity transducer for Mössbauer spectrometers . . . 141 (1977) 515
WITTEVEEN, G. J., Design of an optimal magnetic multipole for polarizing a sodium beam . . . 141 (1977) 21
WITTMAACK, K., Low energy ion beam transport through apertures . . . 143 (1977) 1
WITTMAACK, K. and W. WACH, Determination of ion source pressure from discharge characteristics . . . 143 (1977) 7
WITTMAACK, K., *see* WACH . . . 149 (1978) 259
WOGMAN, N. A., H. G. RIECK, JR., J. C. LAUL and K. W. MACMURDO, High-sensitivity isotope analysis with a ^{252}Cf–^{235}U fueled subcritical multiplier and low background photon detector systems . . . 141 (1977) 539
WOGMAN, N. A., *see* NIELSON . . . 143 (1977) 385
WOJTOWICZ-NATANSON, B., *see* TUROS . . . 149 (1978) 421
WOLF, A. and R. MOREH, Utilization of teflon-covered Ge(Li) diodes for fast neutron detection *(Letter to the Editor)* 148 (1978) 195
WOLF, G. K., *see* GÜTLICH . . . 148 (1978) 573
WOLFF, R. S., *see* ANDERSON . . . 144 (1977) 485
WOLLNIK, H., J. PORSTENDÖRFER, G. RÖBIG and H. G. WILHELM, Aerosols in a gas-jet transport system . . . 144 (1977) 247
WOLLNIK, H., B. PFEIFFER, J. P. BOCQUET and F. SCHUSSLER, The use of a many-capillary gas jet system for nuclear spectroscopic measurements at a recoil fission product separator . . . 144 (1977) 565
WOODRUFF, G. L., *see* SLOAN . . . 150 (1978) 253
WORTHINGTON, J. N., *see* PARKS . . . 143 (1977) 93
WOTSCHACK, J., *see* HOLDER . . . 148 (1978) 235
WRIGHT, A. C., *see* DIXON . . . 143 (1977) 379
WU, C. P., *see* ZIEGLER . . . 149 (1978) 19
WU, C.P., *see* MAGEE . . . 149 (1978) 529
WU, C. T., *see* DUNHAM . . . 145 (1977) 537

YADAVALLI, S. V., Synchronous slow space-charge wave accelerator (SSWA) . . . 147 (1977) 303
YAGITA, H., *see* TAKAI . . . 149 (1978) 457
YAMADA, T. and M. TAZAWA, A neutron shutter for a cyclotron facility *(Letter to the Editor)* . . . 146 (1977) 457
YAMAGUCHI, C., An electrolytic enrichment cell and a reduction system for the measurement of low level tritium concentration in water *(Letter to the Editor)* . . . 146 (1977) 615
YAMAGUCHI, S., *see* OZAMA . . . 149 (1978) 405
YAMAKOSHI, K., *see* NOGAMI . . . 150 (1978) 195
YAMAMOTO, A., A. MAKI and A. KUSUMEGI, An electrostatic separator with built-in high-voltage generators . . . 148 (1978) 203
YAMAMOTO, H., *see* WAKUTA . . . 147 (1977) 461
YAMASHITA, M., Observation of a hysteresis effect in rate-dependent photomultiplier gain variations . . . 142 (1977) 435
YAMATERA, H., *see* ENDO . . . 141 (1977) 273
YAMAZAKI, T., T. TOMIMASU, T. MIKADO, M. CHIWAKI and S. SUGIYAMA, Spatial absorbed-dose distribution in water, C and Al for 25 MeV electrons . . . 144 (1977) 515
YARON, G., *see* SCHIEBER . . . 150 (1978) 71
YONEDA, Y. and N. HIRAMATSU, A spectral chart of the radiation from a circular electron accelerator *(Letter to the Editor)* . . . 150 (1978) 353
YOON, T. S., *see* KENNEDY . . . 145 (1977) 417
YOSHINARI, O., *see* OZAWA . . . 149 (1978) 405
YOSHIOKA, M., *see* IMANISHI . . . 150 (1978) 131
YOUNG, G., *see* TSOUPAS . . . 148 (1978) 93
YOUNG, L. E., *see* BHOWMIK . . . 143 (1977) 63
YOUNG, L. E., *see* SCHERY . . . 147 (1977) 399
YOUNG, P. S., K. FUKUI and Y. V. RAO, Some aspects of 400 GeV proton interactions in nuclear emulsions . . . 147 (1977) 255
YOUNG, P. S., *see* RAO . . . 147 (1977) 259
YPSILANTIS, T., *see* SEGUINOT . . . 142 (1977) 377
YSSING HANSEN, F. and K. CARNEIRO, A procedure to obtain reliable pair distribution functions of non-crystalline materials from diffraction data . . . 143 (1977) 569
YU, M. L., Isotope Effect in the Study of H W(100) and O-W(100) Chemisorption Systems Using SIMS . . . 149 (1978) 559
YUDIN, V. K., *see* BASILADZE . . . 146 (1977) 587
YULE, TH. J., *see* ROBERTS . . . 147 (1977) 83

ZAKHAROV, V. I., N. R. NOVIKOVA and N. A. PERFILOV, On the use of alpha-naphtol in nuclear photography . . . 147 (1977) 49
ZANEVSKY, YU. V., *see* GOLOVATYUK . . . 145 (1977) 437
ZARTOVA, E. Y., *see* LEFTEROV . . . 147 (1977) 583
ZEBELMAN, A. M., W. G. MEYER, K. HALBACH, A. M. POSKANZER, R. G. SEXTRO, G. GABOR and D. A. LANDIS, A time-zero detector utilizing isochronous transport of secondary electrons . . . 141 (1977) 439
ZEIDMAN, B., Heavy ion reactions . . . 146 (1977) 199
ZEISLER, R., *see* CROSS . . . 142 (1977) 111
ZEMANY, P. D., *see* KENNEDY . . . 145 (1977) 417

Zendel, M., *see* Silva **147** (1977) 371
Zgliński, A., *see* Kerek **150** (1978) 479
Ziegler, J. F., C. P. Wu, P. Williams, C. W. White, B. Terreault, B. M. U. Scherzer, R. L. Schulte, E. J. Schneid, C. W. Magee, E. Ligeon, J. L'Ecuyer, W. A. Lanford, F. J. Kuehne, E. A. Kamykowski, W. O. Hofer, A. Guivarc'h, C. H. Filleux, V. R. Deline, C. A. Evans, Jr., B. L. Cohen, G. J. Clark, W. K. Chu, C. Brassard, R. S. Blewer, R. Behrisch, B. R. Appleton and D. D. Allred, Profiling Hydrogen in Materials Using Ion Beams **149** (1978) 19
Ziegler, J. F., The Calculation of Low Energy He Ion Stopping Powers **149** (1978) 129
Ziegler, J. F., *see* Lurio **149** (1978) 155
Ziegler, J. F., *see* Andersen **149** (1978) 247
Ziegler, P., *see* Bechtold **150** (1978) 407
Zimmermann, H. U., *see* Williamson **148** (1978) 231
Zipse, J. E., *see* Golden **148** (1978) 179
Zito, G., *see* Ghidini **147** (1977) 313
Zlatarov, V., *see* Waheed **147** (1977) 245
Zlokazov, V. B., A universal method of spectrum analysis **143** (1977) 151
Zobel, V., J. Eberth, U. Eberth and E.Eube, ^{226}Ra as calibration standard for Ge(Li) spectrometers **141** (1977) 329
Zolnai, L., *see* Somogyi **147** (1977) 287
Zombola, R. R., *see* Lien **146** (1977) 609
Zorič, T., *see* Paulin **150** (1978) 369
Zorn, G. T., *see* Ash **148** (1978) 431
Zucker, O., W. Bostick, J. Long, J. Luce and H. Sahlin, The plasma focus as a large fluence neutron source . . . **145** (1977) 185
Zuhr, R. A., L. C. Feldman, R. L. Kaufman and P. J. Silverman, Surface Studies of W(100) by MeV He Scattering **149** (1978) 349
Zupranski, P., *see* Kassen **150** (1978) 333
Zwang, N., *see* Breskin **144** (1977) 609
Zwang, N., *see* Breskin **146** (1977) 461
Zwang, N., *see* Breskin **148** (1978) 275
Zwoll, K., *see* Schäfer **143** (1977) 489
Zych, A. D., M. A. Nazaretz, J. S. Vogel, P. Albats, G. M. Frye, Jr., R. S. Schreiner and G. B. Thomson, Spark chamber and time-of-flight detector for 15–150 MeV neutrons from an extended source **144** (1977) 183

SUBJECT INDEX

Accelerators, Beam Handling and Targets

Theory for the fast blowup of particle bunches in accelerators, E. Messerschmid and M. Month **141** (1977) 1
Design of an optimal magnetic multipole for polarizing a sodium beam, G. J. Witteveen **141** (1977) 21
Acceleration of beryllium and boron in a tandem accelerator *(Letter to the Editor)*, J. Heinemeier and P. Tykesson . . **141** (1977) 183
Beam intensity distributions in neutral beam injection systems, J. Kum and J. H. Whealton **141** (1977) 187
A superconducting quadrupole "collector" with large solid angle for high energy heavy-ion experiments *(Letter to the Editor)*, R. M. Devries and D. Elmore **141** (1977) 369
On producing negative ion beams of magnesium and calcium in a cesium sputter source *(Letter to the Editor)*, R. Middleton **141** (1977) 373
Preparation of isotopic sulfur targets *(Letter to the Editor)*, M. A. Hedemann **141** (1977) 377
Cyclotron heavy ion beam intensity enhancement by using an easily ionized support gas in the ion source *(Letter to the Editor)*, E. D. Hudson, G. A. Palmer, C. L. Haley and M. L. Mallory **141** (1977) 381
A pulse-operated polarized H^- source of Lamb-shift type *(Letter to the Editor)*, Y. Mori, A. Takagi, M. Kobayashi, Y. Wakuta, S. Fukumoto, K. Kikuchi and M. Sonoda **141** (1977) 383
The effect of beam line magnet misalignments, K. L. Brown, F. Rothacker, D. C. Carey and C. Iselin **141** (1977) 393
A new source-preparation technique for positron lifetime measurements in liquids, I. Dézsi, Zs. Kajcsos and B. Molnár **141** (1977) 401
The preparation of mercury targets for high resolution particle spectroscopy, M. T. Esat, D. C. Kean and R. H. Spear **141** (1977) 405
A fast neutron production facility using a low temperature tritium gas target, J. Soukup, J. M. Cameron, S. T. Lam and G. C. Neilson **141** (1977) 409
On-line determination of acceptances and emittances of the beam guiding system of the Eindhoven AVF-cyclotron, G. C. L. van Heusden and S. S. Klein **141** (1977) 413
Field coupling and higher order aberrations of a magnetic quadrupole doublet consisting of short closely arranged lenses *(Letter to the Editor)*, M. Buckl and W. Schott **141** (1977) 599
Focussing of proton beams to micrometer dimensions, R. Nobiling, K. Traxel, F. Bosch, Y. Civelekoğlu, B. Martin, B. Povh and D. Schwalm **142** (1977) 49
Specimen preparation in PIXE analysis, J. L. Campbell **142** (1977) 263
The central region of the SIN injector cyclotron, J. M. van Nieuwland, N. Hazewindus and A. Baan **142** (1977) 339
Spontaneous resistance variations of Au and Au–20% Pd coated source backings, E. Huster, W. Neumann and J. Schmand **142** (1977) 353
Improvement in the voltage grading (axial and radial) of the generator column of a Van de Graaff generator by the use of a resistor chain, B. R. Prabhakar **142** (1977) 357
Low energy ion beam transport through apertures, K. Wittmaack **143** (1977) 1
A very reliable pion conversion target, R. Lecoguie, Ph. Leconte and J. Miller **143** (1977) 13
The source for a vector polarized lithium-6 beam at the Heidelberg EN-tandem, E. Steffens, W. Dreves, H. Ebinghaus, M. Köhne, F. Fiedler, P. Egelhof, G. Engelhardt, D. Kassen, R. Schäfer, W. Weiss and D. Fick . . **143** (1977) 409
Ion beam optics of misaligned beam transport elements, D. Heck **143** (1977) 423
The zoom lens quadrupole magnets for the university of Colorado energy-loss spectrograph, R. A. Emigh, D. E. Prull, R. J. Peterson and B. W. Ridley **144** (1977) 87
Dynamic polarization of protons in 2,3-butanediol doped with Cr(V)-complex and in other materials containing adjacent hydroxyl groups, K. Guckelsberger **144** (1977) 93
Comment on a paper by K. Halbach: A simple class of beam transport systems with optically axisymmetric transfer properties (*Letter to the Editor*), P. W. Hawkes **144** (1977) 337
Reply to the comment by P. W. Hawkes on my paper: A simple class of beam transport systems with optically axisymmetric transfer properties (*Letter to the Editor*), K. Halbach **144** (1977) 339
A ^{48}Ca beam for tandem accelerators (*Letter to the Editor*), G. Korschinek and W. Kutschera **144** (1977) 343
A survey of negative ions from a cesium sputter source, R. Middleton **144** (1977) 373
A monoenergetic polarised neutron beam from 200 to 500 MeV, C. Amsler, R. C. Brown, D. V. Bugg, J. A. Edgington, C. Oram, D. Axen, R. Dubois, L. Felawka, S. Jaccard, R. Keeler, J. Vávra, A. Clough, D. Gibson, G. A. Ludgate, N. M. Stewart, L. P. Robertson and J. R. Richardson **144** (1977) 401
Investigation of an arc discharge ion source with energy selection (CMA), K.-D. Klöppel, H. Peters and W. Seidel . **144** (1977) 407
A Penning source for negative hydrogen ions, K. Prelec **144** (1977) 413
A stepping motor driven ion beam scanner, R. J. Vader and O. C. Dermois **144** (1977) 423
A fast transport system for fragile targets in high vacuum, R. M. Delvecchio, W. L. Bacco, W. L. McNamee and W. W. Daehnick **144** (1977) 429

The production of a 2–20 MeV collimated monoenergetic neutron beam of known flux using the associated particle technique, C. M. Bartle, D. W. Gebbie and C. L. Hollas 144 (1977) 43
CAMAC control of the biomedical π- beam line at TRIUMF, H. Lang, R. W. Harrison, R. R. Johnson and R. M. Henkelman 144 (1977) 58
Improved technique for the preparation of deuterated-polyethylene targets (*Letter to the Editor*), C. M. Bartle . 144 (1977) 59
An efficient surface ionization integrated target-ion source for alkaline earth elements (*Letter to the Editor*), M. Shmid, Y. Nir-El, G. Engler and S. Amiel 144 (1977) 60

Special Issue on High Energy and High Intensity Neutron Sources

High energy–high intensity neutron sources for fusion technology and radiotherapy applications, H. Ullmaier, R. Behrisch and H. H. Barschall 145 (1977)
Neutron sources using D–T mixed beams driven into solid target, J. Kim 145 (1977)
160 kV, 200 mA dc accelerator for high 14 MeV neutron yield, J. B. Hourst, M. Roche and J. Morin 145 (1977) 1
Rotating target neutron generators, R. Booth, J. C. Davis, C. L. Hanson, J. L. Held, C. M. Logan, J. E. Osher, R. A. Nickerson, B. A. Pohl and B. J. Schumacher 145 (1977) 2
The Dynagen IV – a compact high-intensity neutron source, M. R. Cleland and B. P. Offermann 145 (1977) 4
An intense neutron source based upon the deuteron-stripping reaction, P. Grand and A. N. Goland 145 (1977) 4
A compact beryllium target for production of fast neutrons, C. M. Logan, R. Booth and R. A. Nickerson . . . 145 (1977) 7
Characteristics of an intense neutron source based on the d+Be reaction, M. J. Saltmarsh, C. A. Ludemann, C. B. Fulmer and R. C. Styles 145 (1977) 81
Pulsed spallation neutron sources for slow neutron scattering, J. M. Carpenter 145 (1977) 91
Inverted geometry TOF spectrometer at the ZING-P pulsed neutron source prototype, K. Sköld, K. Crawford and S. H. Chen 145 (1977) 115
Canadian gas target neutron generator research, J. H. De Leeuw, A. A. Haasz and P. C. Stangeby 145 (1977) 119
A 14 MeV intense neutron source facility, D. D. Armstrong, C. R. Emigh, K. L. Meier, E. A. Meyer and J. D. Schneider 145 (1977) 127
A tritium gas target as an intense source of 14 MeV neutrons, G. M. Chenevert, P. M. De Luca, C. A. Kelsey and R. P. Torti 145 (1977) 149
Laser solenoid radiation test facility, L. C. Steinhauer 145 (1977) 157
Potential mirror concepts for radiation testing of fusion reactor materials, G. H. Miley 145 (1977) 169
Pulsed power applications to intense neutron source development, J. J. Ramirez, A. J. Toepfer and M. J. Clauser . 145 (1977) 179
The plasma focus as a large fluence neutron source, O. Zucker, W. Bostick, J. Long, J. Luce and H. Sahlin 145 (1977) 185
The dense plasma focus – a high intensity neutron source, A. Bernard, P. Cloth, H. Conrads, A. Coudeville, G. Gourlan, A. Jolas, Ch. Maisonnier and J. P. Rager 145 (1977) 191

Monitoring of particle beams at high frequencies, J. H. Cupérus 145 (1977) 219
Edge effect in beam monitors, J. H. Cupérus 145 (1977) 232
Development of a ^{238}U filtered beam of 186 eV neutrons, R. B. Royer and R. M. Brugger 145 (1977) 245
An improvement to the beam buncher of the University of Manitoba cyclotron (*Letter to the Editor*), R. Pogson and S. Oh 145 (1977) 403
A new technique for preparation of targets of powdered materials, I. Sugai 145 (1977) 409

Proceedings of the Conference on the Physics of Tandem and Nuclear Physics Workshop

Trieste-Legnaro, April 27–May 7 1976

I. Tandem physics and tandem accelerators

The physics of large tandem, D. Bromley 146 (1977) 1
Tandem accelerators, S. J. Skorka 146 (1977) 67
Tandem physics in Orsay, M. Vergnes 146 (1977) 81
The zero-degree detection system of the Orsay MP tandem: description and experimental results, J. P. Schapira . . . 146 (1977) 89
The XTU Tandem of the Laboratori Nazionali di Legnaro (Padova), R. A. Ricci and C. Signorini 146 (1977) 93
Effect of misalignments of beam optical components, H. Dunkel, L. rohrer and S. J. Skorka 146 (1977) 97
Heavy ion stripping, B. Delaunay 146 (1977) 101
Heavy ion injection for tandem accelerators, K. H. Purser 146 (1977) 115
The negative-ion test injector of the Munich MP tandem and the Hiconex 834 sputter source, G. Braun-Elwert, J. Huber, G. Korschinek, W. Kutschera, W. Goldstein and R. L. Hershberger 146 (1977) 121
Matching of heavy ion sources to tandem accelerators, C. Lukner, G. Latzel and H. Paetz gen. Schieck 146 (1977) 139

II. Nuclear spectroscopy

Where is the atomic nucleus going, D. H. Wilkinson 146 (1977) 143
In beam γ-ray spectroscopy at Tandem Van de Graaff Accelerators, O. W. B. Schult 146 (1977) 161

Quasi-rotational states in vibrational nuclei, G. ALAGA 146 (1977) 171
High-spin nuclear rotations, Z. SZYMANSKI 146 (1977) 183
E2 transitions within the ground-state band of deformed even-even nuclei, A. COVELLO and G. GIBERTI 146 (1977) 189
In-beam measurements of internal conversion coefficients, P. SONA 146 (1977) 193

III. Nuclear reaction mechanisms

Heavy ion reactions, B. ZEIDMAN 146 (1977) 199
Some aspects of Macroscopic Nuclear Dynamics, J. RANDRUP 146 (1977) 213
Deep inelastic collisions with heavy ions: Experiments, J. PÉTER 146 (1977) 225
A microscopic theory of collisions between complex nuclei based on the generator coordinate method, M. V. MIHAILOVIĆ, M. A. NAGARAJAN and M. POLJŠAK 146 (1977) 235
Surface Transparency of optical potentials deduced from heavy-ion scattering studies, N. LISBONA 146 (1977) 243

IV. Selected topics

Intermediate Structures and Heavy-Ion Reactions, L. PAPINEAU 146 (1977) 253
Pre-equilibrium emission, E. GADIOLI and E. GADIOLI ERBA 146 (1977) 265
The so-called molecular resonances: some new aspects, N. CINDRO 146 (1977) 279
Experiments on parity mixing in light nuclei, P. G. BIZZETI 146 (1977) 285
Coulomb Excitation Parameters, J. DE BOER 146 (1977) 293
Applied Nuclear Physics for Life Sciences, O. W. B. SCHULT 146 (1977) 301

V. Contributed papers

Experimental investigations at the Tandem accelerator EGP-10-1 of the Central Institute of Nuclear Research, Rossendorf, K. BECKERT, L. FUNKE, U. GERSCH, P. GIPPNER, E. HENTSCHEL, B. KÜHN, H. KUMPF, W. RUDOLPH, D. SCHMIDT, R. WEIBRECHT and G. WINTER 146 (1977) 307
Gamma-ray spectroscopy of ^{37}Cl via the ^{3}H(^{35}Cl,pγ)^{37}Cl reaction, P. BAUMANN, C. MIEHÉ, A. HUCK, G. KLOTZ and G. WALTER 146 (1977) 308
Unusually strong difference in the side-feeding to the 6^+ doublets of ^{56}Fe populated in heavy-ion compound reactions, T. NOMURA, N. BENDJABALLAH and J. DELAUNAY, ... 146 (1977) 310
A $K^\pi = 4^-$ rotational band in ^{48}V, M. MORANDO, A. STRANIERI, G. FORTUNA and C. SIGNORINI 146 (1977) 311
High spin states in the mirror nuclei ^{15}O and ^{15}N, L. KRAUS, I. LINCK, J. C. SENS and M. TOULEMONDE 146 (1977) 312
High spin states in some Zn isotopes, G. D. JONES, A. KOGAN, P. R. G. LORNIE, H. G. PRICE, P. J. TWIN and R. WADSWORTH 146 (1977) 313
Yrast states in ^{62}Cu, TSAN UNG CHAN, M. AGARD, J. F. BRUANDET, A. GIORNI, F. GLASSER, J. P. LONGEQUEUE and C. MORAND 146 (1977) 314
Recent studies of high-spin states in the fp-shell nuclei, R. BALLINI, N. BENDJABALLAH, S. CAVALLARO, B. DELAUNAY, J. DELAUNAY, J. P. FOUAN, T. NOMURA and C. TOSELLO 146 (1977) 315
Yrast band of ^{56}Fe: Coexistence of prolate and oblate shapes, N. BENDJABALLAH, J. DELAUNAY, T. NOMURA and H. J. KIM 146 (1977) 316
The deformation of the Fermi surface in polarized nuclear matter, J. DABROWSKI and P. HAENSEL 146 (1977) 317
A convergent algorithm for nuclear structure calculations, G. SCHIFFRER and G. FONTE 146 (1977) 318
Resonances analog to parent states in continuum, I. BERCEANU, C. BORCEA, A. BUTĂ, I. LAZĂR, M. PETRASCU, M. PETROVICI, V. SIMION and G. VOICULESCU 146 (1977) 319
Inelastic scattering of ^{3}He and α particles from ^{124}Sn and ^{122,124}Te, S. SALÉM, C. R. APPOLONI, M. N. RAO and N. UETA 146 (1977) 320
A new version of the R-matrix theory for heavy ion transfer reactions, M. W. MORSY, M. S. ATA, A. A. RABIE and M. O. SHAKER 146 (1977) 321
Short-range correlations in one- and two-nucleon transfer reactions with Tabakin potential, AHMED OSMAN 146 (1977) 322
Attempt at the mechanism of α cluster transfer in heavy ions from the theoretical analysis of $A(\alpha,2\alpha)B$ reactions, B. MITHRA 146 (1977) 324
Field description of inelastic scattering, G. G. DUSSEL, E. E. MAQUEDA and R. P. J. PERAZZO 146 (1977) 325
Implantation perturbed angular distribution for argon and potassium in iron, F. BRANDOLINI, C. ROSSI-ALVAREZ, M. UHRMACHER and K. P. LIEB 146 (1977) 326
Perturbed angular distributions in ^{36}Cl and ^{40}K, E. BOZEK, C. GEHRINGER, J. C. MEDINGER, K. OGAWA and J. P. VIVIEN. 146 (1977) 327
Coulomb excitation of ^{135}Ba, D. C. PALMER, R. C. MORGAN, J. R. CRESSWELL, P. D. FORSYTH, I. HALL, M. MAYNARD and D. J. THOMAS. 146 (1977) 328
The reorientation precession technique, REPREC, applied to the measurement of $Q(2_1^+)$ in ^{102}Pd and ^{104}Pd, C. FAHLANDER, L. HASSELGREN and J. E. THUN 146 (1977) 329
Study of the fission products of ^{235,238}U by irradiation with 25 MeV bremsstrahlung, H. THIERENS, D. DE FRENNE, E. JACOBS, A. DE CLERCQ, P. D'HONDT and A. J. DERUYTTER 146 (1977) 330
Charge distribution in the fragments of spontaneous fission of ^{252}Cf, A. ADANI, F. FOSSATI and T. PINELLI 146 (1977) 332
Nuclear pair creation in subcoulomb heavy ion collisions as a probe for strong Coulomb fields, W. MITTIG 146 (1977) 333

Timing experiments and burst suppression at the V. U. AVF-cyclotron, T. J. Ketel, C. Hoekstra, J. Rethmeier and H. Verheul . . . 146 (1977) 335
A compact versatile beam steering unit, H. Brückmann and U. Holm . . . 146 (1977) 339
A pulsed beam time pickoff system for nanoampere beams, P. W. Lisowski, R. L. Walter, S. A. Wender and T. B. Clegg . . . 146 (1977) 477
The preparation of self-supporting oxygen-free lead targets *(Letter to the Editor)*, A. H. Bennink . . . 146 (1977) 591
Splitting of the ZGS polarized proton beam to two beams utilizing a common front stage *(Letter to the Editor)*, E. Colton and D. Read Moffett . . . 146 (1977) 593
Phase space imaging of a beam of charged particles by frictional forces, H. Daniel . . . 147 (1977) 297
Synchronous slow space-charge wave accelerator (SSWA), S. V. Yadavalli . . . 147 (1977) 303
A negative ion sputter source for operation in a Van de Graaff terminal, J. G. Alessi, W. Laughlin, J. X. Saladin, W. L. McNamee and S. D. Gazarik . . . 147 (1977) 305
A gas discharge ion source for an on-line electromagnetic mass separator at a heavy ion accelerator. Part II. The rate of performance, A. P. Kabachenko, I. V. Kuznetsov, Lee Gen Soo and N. I. Tarantin . . . 147 (1977) 337
A small medium-pressure gas target system for use with polarized and unpolarized ion beams *(Letter to the editor)*, J. B. A. England and R. Vlastou . . . 147 (1977) 443
Iron-free coil arrangement for a β-ray spectrometer with an azimuth-dependent field *(Letter to the editor)*, W. Schott 147 (1977) 447
Energy calibration of the A.N.U. 14UD pelletron accelerator, R. H. Spear, D. C. Kean, M. T. Esat, A. M. R. Joye and M. P. Fewell . . . 147 (1977) 455
Effect of dissociator nozzle temperature on polarized atomic hydrogen beam intensities, Y. Wakuta, Y. Koga, H. Hasuyama and H. Yamamoto . . . 147 (1977) 461
New 200 MeV line to BLIP at AGS, Y. Y. Lee . . . 148 (1978) 1
Use of line charge system for a helical electrostatic quadrupole, R. G. McPherson, F. E. Vermeulen and F. S. Chute 148 (1978) 5
A liquid helium-4 target for intermediate energy nuclear physics, C. A. Goulding, B. T. Murdoch, M. S. De Jong, W. T. H. Van Oers and R. H. McCamis . . . 148 (1978) 11
Une méthode simple permettant de tester l'homogénéité d'un faisceau de particules chargées accélérées, G. Weber, G. Robaye et L. Quaglia . . . 148 (1978) 13
An electrostatic separator with built-in high-voltage generators, A. Yamamoto, A. Maki and A. Kusumegi . . . 148 (1978) 203
Mounting of large stripper foils for use in the terminal of an electrostatic accelerator, K. R. Chapman . . . 148 (1978) 209
Source d'ions multichargés pour vapeurs métalliques, S. Bliman, S. Dousson, L. Fremion et R. Geller . . . 148 (1978) 213
Production of 10–80 keV negative heavy ions by charge exchange in Na vapour, J. Heinemeier and P. Hvelplund . . 148 (1978) 425
Preparation of thin red-phosphorus, H-S. Tzeng, J-Y. Liu, I. Sugai and Y. C. Liu . . . 150 (1978) 143
A simple mounting for a liquid target *(Letter to the Editor)*, W. Kreische, H. U. Maar, H. Niedrig, K. Reuter and K. Roth . . . 150 (1978) 325
Use of magnetic suppression on inclined field acceleration tubes *(Letter to the Editor)*, P. Thieberger . . . 150 (1978) 327
Beam quality restoration through gas prestripping of molecular ions in tandem accelerators *(Letter to the Editor)*, P. Thieberger . . . 150 (1978) 329
A new Cr^{v} doping agent for polarized targets *(Letter to the Editor)*, D. Hill, R. C. Miller, M. Krumpolc and J. Roček . . . 150 (1978) 331
Production and calibration of a tensor polarized ^{6}Li-beam *(Letter to the Editor)*, D. Kassen, P. Egelhof, E. Steffens, W. Weiss, P. Zupranski, D. Fink and W. Dreves . . . 150 (1978) 333
Hochfrequenz-Struktur für Linearbeschleuniger *(Letter to the Editor)*, R. Reimann . . . 150 (1978) 337
High voltage experiments for electrostatic inflector and extractor, A. Paulin and T. Zorič . . . 150 (1978) 369
A simple ion source for target preparation via ion beam sputtering *(Letter to the Editor)*, J. A. Nolen, Jr., M. S. Curtin and T. E. Dyson . . . 150 (1978) 581

Computer Automated Measurement and Control

Interface magnetic tape station to CAMAC for on-line data acquisition and reduction system, J. Białkowski and B. Jansson . . . 141 (1977) 587
An autonomous CAMAC crate controller for sequential operations, F. Celani . . . 141 (1977) 593
CAMAC interface module for pace ADC system, C. G. Dalton, R. E. Mischke and D. T. Scott . . . 141 (1977) 595
CAMAC control of the biomedical π- beam line at TRIUMF, H. Lang, R. W. Harrison, R. R. Johnson and R. M. Henkelman . . . 144 (1977) 589
A versatile CAMAC based linear PHA system, A. de Clercq, E. Jacobs, D. de Frenne, H. Thierens, P. D'Hondt and A. J. Deruytter . . . 144 (1977) 593
A CAMAC/NIM system for data acquisition and monitoring of drift chambers *(Letter to the Editor)*, L. Holcomb and A. L. Sessoms . . . 144 (1977) 597
A coding and reading data unit from hodoscopic recording systems in the CAMAC standard, S. G. Basiladze, V. A. Smirnov and V. K. Yudin . . . 146 (1977) 587
The use of CAMAC in testing a large proportional chamber readout system, M. Edwards and M. M. Przybylski . 147 (1977) 605

An economical way to run PDP11 peripherals on a PDP15 computer, J. R. Anderson and R. Herzog 147 (1977) 611
A CAMAC automated nuclear chemistry laboratory, D. G. Perry 147 (1977) 615
Fast AD conversion of pulse sequences, S. Centro, M. de Giorgi and D. Pascoli 150 (1978) 565
Low cost time to digital converter in real time with ±1 ns resolution, G. Lenzi, P. Podini, R. Reverberi and K. Pernestål 150 (1978) 575

Instruments and Methods for High-Energy Physics

A novel design for a hodoscope with 1 mm granularity, J. E. Elias, G. Mikenberg, T. Minto and G. A. Weitsch . . 141 (1977) 25
Development of an on-line control system for the rf separated hadron beams to BEBC, I. Lehraus and W. Tejessy. . 141 (1977) 29
Large planar drift chambers, G. Marel, P. Bloch, S. Brehin, B. Devaux, A. M. Diamant-Berger, C. Leschevin, J. Maillard, Y. Malbequi, .H Martin, A. Patoux, J. Pelle, J. Plancoulaine, G. Tarte and R. Turlay . . . 141 (1977) 43
Iron liquid-argon and uranium liquid-argon calorimeters for hadron energy measurement, C. W. Fabjan, W. Struczinski, W. J. Willis, C. Kourkoumelis, A. J. Lankford and P. Rehak 141 (1977) 61
Use of iron lenses for the transport of muon beams, J. Lebritton, F. Lobkowicz, A. C. Melissinos and W. Metcalf 141 (1977) 81
An automatic film scanner (KAMA) utilizing a new type CRT with double deflection scheme, A. Ono, M. Fukawa, H. Kichimi, H. Kodama, T. Murakami, R. Sugahara, A. Suzuki and K. Takahashi 141 (1977) 193
Test of a liquid argon calorimeter with very thin sampling, C. Cerri and F. Sergiampietri 141 (1977) 207
Measurements of cascades initiated by 5–300 GeV hadrons in a tungsten ionization spectrometer, D. L. Cheshire, R. W. Huggett, W. V. Jones, W. K. H. Schmidt and M. Simon 141 (1977) 219
Hydrogen streamer chamber up to atmospheric pressure, F. Rohrbach, M. Cathenoz, J. Jenny, J. Colas, D. Fournier, J. M. Noppe and J. J. Veillet 141 (1977) 229
Light guide design for timing measurements in large counters, T. Massam 141 (1977) 251
Spin precession in a quadrupole lens, S. Nurushev 141 (1977) 417
The calculation of hadron transmission through absorbers using Monte Carlo simulation of the hadron cascade, V. Schirrmeister and J. Ranft 141 (1977) 425
Laser induced nuclear orientation effects, M. Burns, P. Pappas, M. S. Feld and D. E. Murnick. 141 (1977) 429
A solid argon ionization chamber, J. H. Cobb and D. J. Miller 141 (1977) 433
Calibration calculations of hadronic cascades induced by high-energy muons in iron/plastic calorimeters, T. A. Gabriel and J. D. Amburgey 142 (1977) 361
The detection of minimum ionising charged particles in channel plate electron multipliers, J. E. Bateman 142 (1977) 371
Photo-ionization and Cherenkov ring imaging, J. Seguinot and T. Ypsilantis 142 (1977) 377
Higher energies of meson facilities in perspective, L. A. Sarkisyan 142 (1977) 393
On a five-plane, low-mass, self-triggering multiwire proportional chamber with cathode-coupled coaxial-cable delay-line readout *(Letter to the Editor)*, H. Anderhub, J. Böcklin, H. Hofer, D. Makowiecki, B. Sapp, P.-G. Seiler and G. Wemmers 142 (1977) 595
Study of drift chamber system for a K–e scattering experiment at the Fermi National Accelerator Laboratory, N. A. Filatova, T. S. Nigmanov, V. P. Pugachevich, V. D. Riabtsov, M. D. Shafranov, E. N. Tsyganov, D. V. Uralsky, A. S. Vodopianov, F. Sauli and M. Atac 143 (1977) 17
High-accuracy, bidimensional read-out of proportional chambers with short resolution times, A. Breskin, G. Charpak, C. Demierre, S. Majewski, A. Policarpo, F. Sauli and J. C. Santiard 143 (1977) 29
Measurement of γ-ray energy using a high pressure flash tube chamber, J. M. Breare, J. E. Chaney, P. J. Doe, W. El-Disouki, B. C. Nandi and I. D. Tait 143 (1977) 41
Determination of γ-ray position using a high pressure flash tube chamber, J. M. Breare, P. J. Doe, W. El-Disouki, B. C. Nandi and I. D. Tait 143 (1977) 49
The nuclear magnetic resonance system for the CERN Muon Storage Ring, K. Borer 143 (1977) 203
Absolute calibration of the NMR magnetometers and of the magnetic field measuring system used in the CERN Muon Storage Ring, K. Borer and F. Lange. 143 (1977) 219
A high-precision method for calibration of digital time recorders, J. H. Field, F. Lange and W. Von Ruden 143 (1977) 227
Particle identification in a large streamer chamber with reduced memory time, V. Eckardt, P. Seyboth, I. Derado, H.-J. Gebauer, A. Odian and K. P. Pretzl 143 (1977) 235
Narrow band visible synchrotron radiation from high energy proton beams, R. Coïsson 143 (1977) 241
Hadronic- and electromagnetic-cascade discrimination in a thin lead-argon calorimeter, T. Jensen, J. D. Amburgey and T. A. Gabriel 143 (1977) 429
A semi-automatic bubble matching method for bubble chamber tracks, R. Raja and C. T. Murphy 143 (1977) 547

Proceedings of the First Symposium on Clean Fusion

Washington, D.C., April 30, 1976

Clean fusion concepts and efforts – A survey, R. W. B. Best 144 (1977) 1
Studies of deuterium-fueled Tokamak reactors, G. H. Miley, F. H. Southworth, G. Gerdin and Chan Choi . 144 (1977) 9

Advanced fuel nuclear reaction feasibility using laser compression I, H. Hora . . . **144** (1977) 17
Advanced fuel nuclear reaction feasibility using laser compression II, R. Castillo, H. Hora, E. L. Kane, V. F. Lawrence, M. B. Nicholson-Florence, M. M. Novák, P. S. Ray, J. R. Shepanski, R. I. Sutherland, A. I. Tsivinsky and H. A. Ward . . . **144** (1977) 27
The 1976 status of the Migma program of controlled fusion, B. C. Maglich . . . **144** (1977) 33
Impact of advanced fuel fusion on electric power transmission, R. W. de Mello, N. Dag Reppen, R. J. Ringlee and D. D. Wilson . . . **144** (1977) 43
Advanced fuel fusion experimentation with migmacells II and III – orbit diagnostics and lifetime measurements, S. C. Menasian, J. Ferrer, B. C. Maglich, M. G. Mazarakis, J. E. Nering, C. Powell, J. Sandberg and A. R. Whittemore . . . **144** (1977) 49
Fusion products detection system in migmacell II, J. C. Ferrer, B. C. Maglich, M. G. Mazarakis, S. C. Menasian, J. E. Nering, C. W. Powell and A. R. Whittemore . . . **144** (1977) 51
Methods of "Tailoring" ion distributions in phase space ("morphodynamics"), S. R. Channon . . . **144** (1977) 57
Tailoring electron velocity distributions in phase space (morphodynamics), J. E. Golden . . . **144** (1977) 63
Conditions for a boron fusion reactor in the MeV range, J. R. Treglio . . . **144** (1977) 65
Advanced fuel fusion application to manned space propulsion, R. Ho . . . **144** (1977) 69
Generalized criterion for controlled fusion, R. A. Miller . . . **144** (1977) 73
Unified criterion for proximity to controlled fusion, B. C. Maglich . . . **144** (1977) 77
Are generalized or unified criteria possible?, J. Decker . . . **144** (1977) 81

The hybrid gas–liquid chamber – a new combined track detector, L. V. Bakanov, K. N. Ermakov, V. D. Lebedev, V. V. Miroshkin, V. V. Pashuk, M. V. Stabnikov and M. G. Tverskoy . . . **144** (1977) 99
A position-sensitive, high energy gamma–ray detector, S. Gilad, J. D. Bowman, M. D. Cooper, R. H. Heffner, C. M. Hoffman, M. A. Moinester, J. M. Potter, F. H. Cverna, H. W. Baer, P. R. Bevington and M. W. McNaughton . . . **144** (1977) 103
Correction of effects due to reactions on complex nuclei in a sample of hydrogen-like $\bar{p}$ annihilations from a heavy liquid bubble chamber experiment, E. Fett, A. Haatuft, J. M. Olsen, W. Hart, D. Waldren, P. Alibran, B. Degrange, R. Arnold, J. P. Engel and S. de Unamuno . . . **144** (1977) 109
Anomalous electron bunch length due to fast instability, M. Month and E. Messerschmid . . . **144** (1977) 119
Optimization of antiproton fluxes from targets using hadron cascade calculations, B. V. Chrikov, V. A. Tayurski, H.-J. Möhring, J. Ranft and V. Schirrmeister . . . **144** (1977) 129
A simple automatic centering system for bubble chamber film measuring and premeasuring tables, E. Solomos . **144** (1977) 141
SST, a device to test the stability of the spot-position on a microspot CRT, H. Anders and R. E. S. Berglund . **144** (1977) 151
The separation between hadrons and electromagnetic particles using an ionization calorimeter (*Letter to the Editor*), L. W. Jones . . . **144** (1977) 341
Particle identification by measurement of the spark formation time in a system of modified spark chambers. H.-J. Gebauer . . . **144** (1977) 447
Development of a large area drift chamber with copper strip cathode planes, K. A. Connell, R. A. Cunningham, M. Edwards, E. Gabathuler, P. R. Norton and R. P. Walker . . . **144** (1977) 453
An unconventional transition radiation detector, A. G. Oganessian, A. T. Sarkissian and M. Atac. . . . **145** (1977) 251
Automatic analysis of BEBC pictures using the flying spot digitizer, P. Bacilieri, L. Fonti, M. L. Luvisetto, M. Masetti, P. Matteuzzi and L. Simoni. . . . **145** (1977) 255
RF fields due to Schottky noise in a coasting particle beam, L. Faltin. . . . **145** (1977) 261
Particle identification in a hodoscope Cherenkov spectrometer, V. A. Davydov, A. V. Inyakin, V. A. Kachanov, R. N. Krasnokutsky, Yu. V. Mikhailov, Yu. D. Prokoshkin and R. S. Shuvalov . . . **145** (1977) 267
A new technique for selecting the reaction $\pi^+ p \rightarrow n\pi^+\pi^+\pi^+\pi^-$ from the background, C. N. Kennedy, A. W. Key, T. S. Yoon and P. D. Zemany . . . **145** (1977) 417
On the balance and separation processes in rotating plasmas, T. Hellsten . . . **145** (1977) 425
Transition radiation spectra from randomly spaced interfaces, C. W. Fabjan . . . **146** (1977) 343
Lepton pair photoproduction in a thick target, K. Ueno . . . **146** (1977) 347
Reconstruction of the momentum of a particle moving in an axially symmetric magnetic field, R. Birsa, F. Bradamante, C. Daum, G. Fidecaro, M. Fidecaro, M. Giorgi, L. Lanceri, A. Penzo, L. Piemontese, P. Schiavon, A. Vascotto and A. Villari . . . **146** (1977) 357
Muon flux measuring system for neutrino experiments at the IHEP accelerator, A. P. Bugorsky, V. N. Goryachev, V. I. Kochetkov, V. A. Krendelev, V. I. Kurbakov, A. I. Mukhin, V. I. Poletaev, V. G. Rybakov, V. N. Rychenkov, Yu. M. Sviridov, V. Ya. Uglekov, A. A. Volkov and A. S. Vovenko . . . **146** (1977) 367
The slow proton trigger for the CERN OMEGA spectrometer, B. Ghidini, A. Palno, G. Zito, J. Bröring, K. Müller, B. Nellen, J. Eades, B. French, K. Knudson, L. Mandelli, F. Navach, V. Picciarelli, A. Werbrouck, M. Edwards, I. L. Smith, R. A. Donald, D. N. Edwards, J. R. Fry, A. Cantore, R. Car, P. D'Angelo and M. di Corato . . . **147** (1977) 313
Return to unsaturated response of polymeric scintillators excited by relativistic heavy ions, S. P. Ahlen, B. G. Cartwright and G. Tarlé . . . **147** (1977) 321

An accelerator evaluation of the performance of the Soviet-French wide-gap spark chamber for gamma-ray astronomy, V. Akimov, R. Bazer-Bachi, E. Bonfand, A. Galper, M. Gorisse, M. Gros, L. Kalinkin, V. Kirillov-Ugryumov, V. D. Kozlov, J. M. Lavigne, J. P. Leray, B. Luchkov, B. Mougin, V. E. Nesterov, Y. Ozerov, J. A. Paul, A. Popov, V. L. Prokhine, A. Raviart, G. Serra, G. V. Veselova and S. Voronov **147** (1977) 329
A binary encoded position-sensitive scintillation hodoscope, J. H. Hoftiezer, G. S. Mutchler, J. A. Buchanan, W. P. Madigan and G. C. Philips **147** (1977) 465
A small multiwire proportional chamber of novel design, R. A. Cunningham, D. G. Taylor and R. P. Walker . . **147** (1977) 471
An atomic-beam magnetic resonance (ABMR) system for on-line hyperfine structure measurements in short-lived nuclides, C. Ekström, S. Ingelman and G. Wannberg **148** (1978) 17
A new position-sensitive detector for thermal and epithermal neutrons, A. P. Jeavons, N. L. Ford, B. Lindberg and R. Sachot **148** (1978) 29
Fast release of nuclear reaction products from refractory matrices, L. C. Carraz, I. R. Haldorsen, H. L. Ravn, M. Skarestad and L. Westgaard **148** (1978) 217
A detector for high-energy neutrino interactions, M. Holder, J. Knobloch, A. Lacourt, G. Laverrière, J. May, H. Paar, P. Palazzi, F. Ranjard, P. Schilly, D. Schlatter, J. Steinberger, H. Suter, H. Wahl, E. G. H. Williams, F. Eisele, G. Geweniger, K. Kleinknecht, D. Pollmann, G. Spahn, H. J. Willutzki, W. Dorth, F. Dydak, V. Hepp, W. Heyde, K. Tittel, M. Vysočanský, J. Wotschack, P. Bloch, S. Bréhin, B. Devaux, M. Grimm, J. Maillard, Y. Malbequi, G. Marel, B. Peyaud, J. Rander, A. Savoy-Navarro, G. Tarte, R. Turlay and F. L. Navarria **148** (1978) 235
Arrangement for study of π^0-photoproduction on ^{4}He nuclei, A. S. Alexanian, T. L. Asatiani, A. O. Gasparian, L. A. Jirova, L. A. Genina, V. A. Ivanov, G. K. Megrabian, G. G. Mkrtchian, R. N. Pikhtelev, M. I. Dayon, A. D. Kamenski, F. F. Kayumov, V. A. Kramarenko, G. L. Melkumov and M. N. Khachaturian **148** (1978) 251
Description and performance of MEA, the magnetic detector at Adone, W. W. Ash, D. C. Cheng, B. Esposito, F. Felicetti, A. Marini, H. Ogren, I. Peruzzi, M. Piccolo, F. Ronga, G. Sacerdoti, L. Trasatti, G. T. Zorn, B. Bartoli, B. Coluzzi, A. Nigro, V. Silvestrini, F. Vanoli, D. Bisello, A. Mulachié, M. Nigro, L. Pescara, R. Santangelo, E. Schiavuta, D. Scannicchio, P. Monacelli, L. Paoluzi, G. Piano-Mortari and F. Sebastiani **148** (1978) 431
Slot-type pick-up and kicker for stochastic beam cooling, L. Faltin **148** (1978) 449
Effect of high gas density and energy control on spark width in narrow gap chambers, J. R. Pekelsky, R. W. Morrison and F. Villa **148** (1978) 457
Progress in high-accuracy proportional chambers, G. Charpak, G. Petersen, A. Policarpo and F. Sauli **148** (1978) 471
Use of a MWPC in a big magnetic spectrometer as a counter hodoscope for fast majority discrimination, G. Colla, P. L. Frabetti, C. Merli, C. Quarantini, R. Volta, P. D'Angelo, S. Grabar, P. F. Manfredi and S. Micheletti **148** (1978) 489
Memoires a plasma associées à un détecteur de particules, G. Comby et Ph. Mangeot **150** (1978) 119
A large acceptance spectrometer using wire chambers, A. Imanishi, S. Kato, K. Shino, T. Toshioka, K. Ukai, K. Watanabe, M. Daigo, Y. Hemmi, R. Kikuchi, M. Minowa, K. Miyake, T. Nakamura, A. Noda, M. Ono, Y. Suzuki, M. Yoshioka, M. Chiba, K. Sugano, T. Shimomura, T. Shinohara and Y. Hoshi **150** (1978) 131
Uranium liquid-argon calorimeters: A calculational investigation, T. A. Gabriel **150** (1978) 145
Secondary electron amplification in high energy proton accelerators *(Letter to the Editor)*, D. Edwards, Jr **150** (1978) 339
The 11.7 T solenoid of the hyperon bubble chamber, D. Coffey, A. Manz, R. Settles, S. Reucroft and C. E. Roos **150** (1978) 377
The trigger system of MUTRON, a cosmic ray magnetic spectrometer, S. Higashi, K. Honda, S. Ozaki, T. Takahashi, Y. Teramoto, T. Kitamura, K. Mitsui, S. Miyake, Y. Muraki, I. Nakamura, Y. Ohashi, A. Okada, S. Iida, Y. Kamiya, Y. Kawashima, H. Shibata, K. Kobayakawa, S. Mikamo and Y. Minorikawa **150** (1978) 387
Observation of ionization electrons drifting large distances in liquid argon *(Letter to the Editor)*, H. H. Chen and J. F. Lathrop **150** (1978) 585
Limitations for the generation of GeV ions from laser irradiated targets *(Letter to the Editor)*, H. Hora, E. L. Kane and J. L. Hughes **150** (1978) 589

Instruments for Nuclear Spectroscopy

Rf contact for superconducting resonators, M. Grundner, H. Lengeler and E. Rathgeber **141** (1977) 57
Characteristics of a miniature dosimeter developed for measurement of electrons, A. Maruhashi **141** (1977) 87
Compteur proportionnel à localisation pour la détection des ions lourds, B. Saghai et P. Roussel **141** (1977) 93
A position-sensitive multiwire proportional chamber for fission fragments with large solid angle, P. Glässel, H. Rösler, R. Männer and H. J. Specht **141** (1977) 111
A position sensitive parallel plate avalanche detector for heavy-ion X-ray coincidence measurements, G. Gaukler, H. Schmidt-Böcking, R. Schuch, R. Schulé, H. J. Specht and I. Tserruya **141** (1977) 115
A note on containers for neutron diffraction studies of chemically-reactive liquids, G. W. Stanton, J. C. Dore and N. J. Hance **141** (1977) 259

A scintillation counter hodoscope for low energy light ions, J. V. Geaga, G. J. Igo, J. B. McClelland, M. A. Nasser, S. Sander, H. Spinka, D. A. Treadway, J. B. Carroll, D. Fredrickson, V. Perez-Mendez and E. T. B. Whipple 141 (1977) 263
Construction of a simple fast-slow coincidence system, K. Endo, K.-I. Sasaki, M. Furukawa and H. Yamatera . . . 141 (1977) 273
A frameless, cylindrically shaped, multiwire proportional chamber using charge division readout. A. Fainberg, N. Horwitz, I. Linscott and G. Moneti 141 (1977) 277
Recoil deuteron polarimeter for a polarized ^{3}He beam *(Letter to the Editor)*, O. Karban, C. O. Blyth, Y.-W. Lui and S. Roman 141 (1977) 387
A time-zero detector utilizing isochronous transport of secondary electrons, A. M. Zebelman, W. G. Meyer, K. Halbach, A. M. Poskanzer, R. G. Sextro, G. Gabor and D. A. Landis 141 (1977) 439
Some properties of spherical drift chambers, G. Charpak, C. Demierre, R. Kahn, J. C. Santiard and F. Sauli 141 (1977) 449
Focal plane instrumentation: a very high resolution MWPC system for inclined tracks, W. Bertozzi, M. V. Hynes, C. P. Sargent, C. Creswell, P. C. Dunn, A. Hirsch, M. Leitch, B. Norum, F. N. Rad and T. Sasanuma . . . 141 (1977) 457
Studies of a tetralin-based scintillator with possible applications in neutron spectrometry, M. M. Abd El-Razek and J. H. Thorngate 141 (1977) 477
The use of high-purity germanium diodes as low-temperature β-particle detectors, J. Boysen and W. D. Brewer . . . 141 (1977) 483
A jumping spark counter for various applications; rapid determination of its counting parameters, M. Várnagy, L. Vasváry, E. Gyarmati, S. Juhász, T. Scharbert and T. Sztaricskai 141 (1977) 489
A position sensitive ΔE–E telescope, R. G. Stokstad, D. C. Hensley and A. H. Snell 141 (1977) 499
A subnanosecond, low pressure, MWPC for heavily ionizing particles, A. Breskin 141 (1977) 505
A new technique of loading nuclear emulsions with thin wires, B. Lindkvist 141 (1977) 511
A multi-purpose velocity transducer for Mössbauer spectrometers, H. P. Wit, G. Hoeksema, L. Niesen and H. de Waard 141 (1977) 515
A proton semi-microbeam device for surface analysis, D. Brune, U. Lindh and J. Lorenzen 142 (1977) 51
Some aspects of detectors and electronics for X-ray fluorescence analysis, F. S. Goulding 142 (1977) 213
A neutron scattering chamber with a high temperature resolution, F. Söffge 142 (1977) 399
Dependence of efficiency curve for Ge(Li) detectors on detector shape, V. Hnatowicz 142 (1977) 403
A passive neutron spectrometer and dosimeter using LiF:Mg, Ti thermoluminescent detectors, D. Singh, B. Burgkhardt and E. Piesch 142 (1977) 409
Light pulse shapes from plastic scintillators, M. Moszyński and B. Bengtson 142 (1977) 417
Observation of a hysteresis effect in rate-dependent photomultiplier gain variations, M. Yamashita 142 (1977) 435
Spurious Malter pulses in a 4π proportional counter, W. Neumann 142 (1977) 439
Scintillation response of Pilot U to 100 MeV neutrons, A. N. James, J. M. Cameron, D. A. Hutcheon, P. Kitching, W. J. McDonald, C. A. Miller and E. D. Earle 142 (1977) 443
A position-sensitive detector system for use in the focal planes of a multigap magnetic spectrograph, P. Möller and H. V. Klapdor 142 (1977) 447
Operation of a conventional multiwire proportional chamber as a drift chamber, H. Crannell, G. S. Maurer and E. M. Carreira 142 (1977) 455
An extremely thin scintillation detector for thermal neutrons, F. Mantler-Niederstätter, F. Bensch and F. Grass 142 (1977) 463
Photomultiplier tube base for high pulsed anode currents, R. D. Hiebert, H. A. Thiessen and A. W. Obst 142 (1977) 467
High speed rotating vacuum seal, R. Booth and C. M. Logan 142 (1977) 471
Performance of a time-variant filter in the presence of dominant $1/f$ noise *(Letter to the Editor)*, J. Llacer and D. F. Meier 142 (1977) 597
Calculation of the efficiency of a cylindrical detector for thermal neutrons with due account taken of the influence of the wall *(Letter to the Editor)*, M. Davidovic and U. Dahlborg 142 (1977) 601
Off-center X-ray detection efficiencies of Si(Li) detectors, Z. B. Alfassi and R. Nothman 143 (1977) 57
Development of a new scintillator containing uranium, E. Catalano and J. B. Czirr 143 (1977) 61
The neutron time-of-flight facility at Michigan State University, R. K. Bhowmik, R. R. Doering, L. E. Young, S. M. Austin, A. Galonsky and S. D. Schery 143 (1977) 63
A low-background positron spectrometer, V. F. Apalin, A. A. Borovoy, A. N. Kheruvimov and V. I. Kopeikin . . 143 (1977) 71
A variable curvature analyser crystal for three-axis spectrometers, R. Scherm, G. Dolling, R. Ritter, E. Schedler, W. Teuchert and V. Wagner 143 (1977) 77
Secondary electron yield in the Bendix channel electron multiplier, C. Barat and J. Coutelier 143 (1977) 87
Design and operation of a multiple rabbit, L. A. Parks, C. N. Davids, B. G. Nardi and J. N. Worthington 143 (1977) 93
A versatile counter telescope for neutron-induced charged-particle reactions and finite geometry correction, E. Rosario-Garcia and R. E. Benenson 143 (1977) 245
A comparative study of n–γ discrimination properties of scintillators NE 213, C_6H_6, C_6D_6 and stilbene, M. Ahmed . 143 (1977) 255
Simple description of large-area scintillation counter and its characteristic properties, S. Kobayashi 143 (1977) 259
Increase in speed of Wilkinson-type ADC and improvement of differential non-linearity, S. Kinbara 143 (1977) 267
An irradiation facility at the 225 cm cyclotron in Stockholm, Chr. Bargholtz, K. Fransson, L.-E. Fröberg and K. Schmidt 143 (1977) 273
The efficiency of counter telescopes for detecting intermediate-energy protons, J. M. Cameron, P. Kitching, R. H. McCamis, C. A. Miller, G. A. Moss, J. G. Rogers, G. Roy, W. Stetz, C. A. Goulding and W. T. H. Van Oers 143 (1777) 399

Comment on the resolution of NaI counter telescopes *(Letter to the Editor)*, A. Stetz **143** (1977) 405
Time resolution measurements with an improved discriminator and conical scintillators, J. D. McGervey, J. Vogel, P. Sen and C. Knox **143** (1977) 435
The Giessen polarization facility. I. Lambshift source, W. Arnold, H. Berg, H. H. Krause, J. Ulbricht and G. Clausnitzer **143** (1974) 441
The Giessen polarization facility. II. 1.2 MeV tandem accelerator, W. Arnold, J. Ulbricht, H. Berg, P. Keiner, H. H. Krause, R. Schmidt and G. Clausnitzer **143** (1977) 457
The Giessen polarization facility. III. Multi-detector analyzing system, H. H. Krause, R. Stock, W. Arnold, H. Berg, E. Huttel, J. Ulbricht and G. Clausnitzer **143** (1977) 467
Three-cavity variable energy racetrack microtron with intra-sector beam focusing, H. R. Froelich, A. S. Thompson, D. S. Edmonds Jr., J. J. Manca, J. W. McGowan, J. C. F. MacDonald, J. Beard and G. Bees **143** (1977) 473
Cerium-activated BaF_2 and CaF_2 scintillators, J. B. Czirr and E. Catalano **143** (1977) 487
A flexible four-detector system for a two-axis neutron diffractometer, W. Schäfer, G. Will, K. Grünhagen, E. Pofahl and K. Zwoll **143** (1977) 489
Étude et réalisation d'une source duoplasmatron de courant crête extrait supérieur à 1 A, G. Bauwens, N. Noblet et G. Sylin **143** (1977) 497
A low-pressure noble-gas scintillation counter for heavy-ion detection, M. Mutterer, J. P. Theobald and K.-P. Schelhaas **144** (1977) 159
Temperature dependence of the pulse shape discrimination properties of NE 213, A. Chalupka, G. Stengl and H. Vonach **144** (1977) 167
A precise light pulser for testing of surface barrier particle spectrometers, M. Geretschläger and H. Paul . . . **144** (1977) 171
Le comportement du multiplicateur tubulaire d'electrons entre 20 et 100 °C *(Letter to the Editor)*, C. Barat et J. Coutelier **144** (1977) 347
A simple and accurate dead time measuring system for a Si(Li) X-ray spectrometer system *(Letter to the Editor)*, Md. R. Khan and D. Crumpton **144** (1977) 351
Application of chemical preferential etching on fabrication of expitaxial silicon detectors *(Letter to the Editor)*, S. Osada, K. Husimi, Y. Fuchi, S. Ohkawa and S. Watanabe **144** (1977) 353
Operation of channel plate multipliers in strong magnetic fields *(Letter to the Editor)*, F. Falk **144** (1977) 355
A method to improve the differential linearity of successive-approximation analog-to-digital converters *(Letter to the Editor)*, M. Brendle **144** (1977) 357
Energy loss and straggling of alpha particles in thin homogeneous NE-111 scintillator foils, H. Geissel, K. Güttner, S. Hofmann and G. Münzenberg **144** (1977) 465
Fabrication of HgI_2 nuclear detectors, M. Schieber **144** (1977) 469
Preliminary results on the time resolution of a plastic scintillator neutron counter of large area for neutrons of 16 MeV, C. Cernigoi, N. Grion, G. Pauli and B. Saitta **144** (1977) 479
A focusing gas scintillation proportional counter, D. F. Anderson, O. H. Bodine, R. Novick and R. S. Wolff . **144** (1977) 485
Quantum detection efficiency of a microchannel plate image intensifier, R. G. Gould, P. F. Judy, J. C. Klopping and B. E. Bjärngard **144** (1977) 493
A 20 cm 100% transmission drift chamber with thin foil cathodes, W. J. Ockels **144** (1977) 501
A ^{6}Li glass detector system for measuring threshold photoneutron spectra, L. C. Haacke, J. S. Hewitt and K. G. McNeill **144** (1977) 507
Xenon–krypton mixtures for the gas proportional scintillation counter (*Letter to the Editor*), M. A. F. Alves, M. Salete S.C.P. Leite, M. Alegria Feio and A. J. P. L. Policarpo **144** (1977) 605
Timing properties of parallel plate avalanche counters with light particles (*Letter to the Editor*), A. Breskin and N. Zwang **144** (1977) 609
Velocity selector for heavy-ion separation, M. Salomaa and H. A. Enge **145** (1977) 279
Pulse pile-up in nuclear particle detection systems with rapidly varying counting rates, D. W. Datlowe **145** (1977) 379
Concrete shielding for thermoluminescent dosimeter monitoring post to reduce background interference, P.-S. Weng and P.-C. Hsu **145** (1977) 433
A low pressure proportional chamber with a high space resolution, V. M. Golovatyuk, A. B. Ivanov, V. A. Nikitin, V. D. Peshekhonov and Yu. V. Zanevsky **145** (1977) 437
A new system of deuterium pressure regulation in ion sources, Š. Bederka and J. Kral **145** (1977) 441
Insintric time resolution of detectors in a time-of-flight spectrometer, J. Pouthas, S. Agarwal, M. Engrand and C. Pisani **145** (1977) 445
A 480-channel lead glass Cherenkov detector, D. P. Barber, J. B. Dainton, E. Gabathuler, P. N. Johnson, L. C. Y. Lee, L. Littenberg, R. Marshall, J. D. B. Rees, W. Smith, J. C. Thompson, D. W. L. Tolfree, D. T. Williams, T. J. Brodbeck, G. Frost, G. Patrick, G. F. Pearce, D. Newton, A. M. Osborne, T. Sloan, G. R. Brookes and P. B. Wilkes **145** (1977) 453
On the luminosity of a two-crystal diffractometer, K. Blinowski, L. Chetmicki and L. Dobrzyński **146** (1977) 373
Some results on the sensitivity of the RCA 4522 photomultiplier tube, K. J. Orford, R. J. Stubbs and W. D. Waddoup **146** (1977) 389
The ability of a gas scintillation proportional counter to reject background events in a space environment, R. D. Andresen, E.-A. Leimann, A. Peacock and B. G. Taylor **146** (1977) 391

A burst length discrimination system for a gas scintillation proportional counter, E.-A. Leimann and A. Van Dordrecht **146** (1977) 399
A comparison of charge coupled devices and film sensitivities, W. O. Wallick, R. G. Kenyon and H. J. Lubatti . . **146** (1977) 403
Comment on the use of thermoluminescence dosimeters as thermal neutron detectors *(Letter to the Editor)*, Y. S. Horowitz and A. Dubi **146** (1977) 455
A neutron shutter for a cyclotron facility *(Letter to the Editor)*, T. Yamada and M. Tazawa **146** (1977) 457
A plunger device for in-beam measurements of nuclear lifetimes, G. Battistuzzi, B. Dainese, C. Signorini and A. M. Stefanini **146** (1977) 481
Design and performance of an 8 cm thick intrinsic germanium detector telescope, R. Eisberg, M. Makino, R. Cole, C. N. Waddell, M. Baker, J. J. Jarmer, D. M. Lee and P. Thompson. **146** (1977) 487
A cementing technique for joining acrylic pieces of small surface area *(Letter to the Editor)*, J. Bednar, D. Holler and W. Selove **146** (1977) 597
Improvement of the plateau characteristics of self-quenching GM counters by γ-irradiation *(Letter to the Editor)*, Y. Sato **146** (1977) 599

Selected Papers read at the 9th International Conference on Solid State Nuclear Track Detectors

Neuherberg/Munich, September 30–October 6, 1976

Opening Lecture

The past and future roles of solid state nuclear track detectors, R. L. Fleischer **147** (1977) 1

1. Track theory

A spatial track formation model and its use for calculating etch-pit parameters of light nuclei, G. Somogyi **147** (1977) 11

3. Tracks in plastic

Some aspects of the etching behavior of cellulose nitrate as track detector, D. Hildebrand, G. Reitz and H. Bücker **147** (1977) 19
Etch induction time in cellulose nitrate: a new particle identification parameter, F. H. Ruddy, H. B. Knowles, S. C. Luckstead and G. E. Tripard **147** (1977) 25
^{3}He and ^{4}He spectroscopy using plastic solid-state nuclear track detectors, M. Balcazár-García and S. A. Durrani **147** (1977) 31

4. Tracks in crystals and glasses

Further developments with glass detectors for heavy ions and fission fragments, G. Fiedler, J. Aschenbach, W. Otto, T. Rautenberg, U. Steinhauser and G. Siegert **147** (1977) 35

5. Tracks in emulsions

Width measurements on neon and nitrogen tracks in Ilford G-5 emulsion, P. J. McNulty and R. C. Filz **147** (1977) 41
A study of recording possibilities of emulsions in autoradiography conditions, C. S. Bogomolov, I. F. Razorenova, I. A. Ruditskaya, L. S. Khruliova, G. I. Kozinets and V. V. Fetisov **147** (1977) 45
On the use of alpha-naphtol in nuclear photography, V. I. Zakharov, N. R. Novikova and N. A. Perfilov **147** (1977) 49
The separation of heavy ion tracks in nuclear emulsions by means of the pulsed electric field, A. B. Akopova, N. V. Magradze, L. V. Melkumyan and Y. P. Prokhorenko **147** (1977) 53

6. Evaluation techniques

Automatic spark counting of fast neutron induced recoil particles in polymers, E. Piesch and J. Jasiak **147** (1977) 57
A high precision video-electronic measuring system for use with solid state track detectors, J. U. Schott, E. Schopper and R. Staudte **147** (1977) 63
Automatic fission track counting using the Quantimet 720, D. Azimi-Garakani and J. G. Williams **147** (1977) 69
Automatic device for measurements of heavy ion tracks in plastics, S. di Liberto and P. Ginobbi **147** (1977) 75
Realtime automatic evaluation of solid state nuclear track detectors with an on-line TV-device, W. Abmayr, P. Gais, H. G. Paretzke, K. Rodenacker and G. Schwarzkopf **147** (1977) 79

7. Applications in earth sciences and radiochemistry

Characterization of aerosols containing fissionable elements using solid-state track recorders, J. H. Roberts, V. P. Kafalenos and Th. J. Yule **147** (1977) 83
Utilization of α-autoradiography of rocks in the investigation of the radioactive equilibrium, R. Coppens, P. Richard and S. Bashir **147** (1977) 87
Geological analysis by track etch method, A. E. Liehu **147** (1977) 93
Age determination of sediments by ^{210}Pb using a plastic detector technique, J. M. Jensen, W. Enge, H. Erlenkeuser and H. Willkomm **147** (1977) 97

Fission track dating of quartz grains from the Oklo uranium ore deposit, J. C. Dran, J. P. Duraud, Y. Langevin and J. C. Petit 147 (1977) 101
A sensitive mapping technique for bismuth using α-particle tracks, K. Thiel and G. Damm 147 (1977) 105

8. Application in dosimetry and radiography

Fast neutron radiography for extended objects by a plastic detector technique, E. Bagge, E. Dühmke, W. Enge, W. Hunger, U. Roose and R. Scherzer 147 (1977) 109
A neutron radiography facility on the IRT-2000 reactor, I. Y. Khadduri 147 (1977) 115
Status report: direct track detector dosimetry in fast neutron beams, H. B. Knowles, F. H. Ruddy, G. E. Tripard, H. Bichsel, J. Eenmaa and J. E. Smathers 147 (1977) 119
Radon and thoron dosimetry by plastic solid state nuclear track detectors, H. A. Khan, R. A. Akber, K. M. Bukhari and A. Saddarudin 147 (1977) 125
Results of an international alpha particle registration intercomparison with solid state nuclear track detectors, H. G. Paretzke 147 (1977) 133
Factors affecting the sensitivity of plastic detectors to ionizing α-particle registration, R. Antanasijević, Ž. Todorović, A. Stamatović and D. Miočinović 147 (1977) 139
Alpha autoradiography by cellulose nitrate layer, J. Simonović, J. Vuković and R. Antanasijević 147 (1977) 141
Fast neutron dosimetry by means of different solid state nuclear track detectors, F. Spurný and K. Turek 147 (1977) 143
Fast neutron dosimetry by track detection with cellulose nitrate films, U. Lotz, E. Pitt, A. Scharmann and B. Vitt 147 (1977) 149
A neutron dosimeter using cellulose nitrate films, I. Y. Khadduri and I. K. Al-Haddad 147 (1977) 153
Status report: direct track detector dosimetry in negative pion beams, H. B. Knowles, F. H. Ruddy, G. E. Tripard, G. M. West and M. M. Kligerman 147 (1977) 157
On the electrochemical etching of neutron-induced tracks in plastics and its application to personnel neutron dosimetry, G. M. Hassib, J. W. N. Tuyn and J. Dutrannois 147 (1977) 163
Neutron fluence measurements with solid state nuclear track detectors — results of an international intercomparison, H. Schraube and H. G. Paretzke 147 (1977) 169
Application of solid state nuclear track detectors for personnel monitoring around high energy accelerators, J. Dutrannois and J. W. N. Tuyn 147 (1977) 177

9. Applications in cosmic ray physics

Ultra heavy cosmic ray nuclei — analysis and results, P. H. Fowler 147 (1977) 183
High resolution study of nucleonic cosmic rays with $Z \geqslant 34$, P. H. Fowler, C. Alexandre, V. M. Clapham, D. L. Henshaw, C. O. Ceallaigh, D. O'Sullivan and A. Thompson 147 (1977) 195
Measurement of the cosmic ray element abundances between $\simeq 300$ and $\simeq 750$ MeV/N in the region from nickel to krypton using Lexan track detectors, P. H. Fowler, D. L. Henshaw, C. O. Ceallaigh, D. O'Sullivan and A. Thompson 147 (1977) 201
Lunar and meteoritic mineral track detectors and the composition of the galactic cosmic radiation, W. Krätschmer 147 (1977) 205
Isotopic composition of cosmic ray nuclei, W. Enge 147 (1977) 211
Calibration of two plastic detectors and application on study of heavy cosmic rays, J. Tripier and M. Debeauvais 147 (1977) 221

10. Applications in nuclear physics

Applications of SSNTDs in high energy physics, I. Otterlund 147 (1977) 227
Fast stable particles from light nuclei of emulsion following the interaction of 1.5 GeV/c K mesons, A. Waheed and M. Jurić 147 (1977) 239
Probability distribution for K^-p and K^-n channels in the interaction of 1.5 GeV/c K^- mesons in light emulsion nuclei, A. Waheed, M. Jurić and V. Zlatarov 147 (1977) 245
Hypernuclei in some hammerlike events recorded in a photonuclear emulsion irradiated with stopping K^- mesons, M. K. Jurić and S. B. Drndarević 147 (1977) 251
Some aspects of 400 GeV proton interactions in nuclear emulsions, P. S. Young, K. Fukui and Y. V. Rao 147 (1977) 255
The scattering constant for multiply charged particles in emulsions, Y. V. Rao, K. Fukui and P. S. Young 147 (1977) 259
Spallation products induced by energetic neutrons in plastic detector material, K. Grabisch, R. Beaujean, R. Scherzer and W. Enge 147 (1977) 263
Fission of Bi, Pb, and Au induced by 0.65, 1.74 and 4.12 GeV alpha particles, B. Grabež, Ž. Todorović and R. Antanasijević 147 (1977) 267
Multifragment decay reactions induced by heavy ions and studied with mica track detectors, P. Vater, H. J. Becker, R. Brandt and H. Freiesleben 147 (1977) 271
Application of glass solid state nuclear track detectors in the measurement of the charged particle fission cross-section of uranium, S. Mubarakmand, K. Rashid, P. Chaudhry and H. A. Khan 147 (1977) 279
Application of the track diameter measurement method in nuclear physics, V. A. Nikolaev 147 (1977) 283
On the detection of low-energy ^{4}He, ^{12}C, ^{14}N, ^{16}O ions in PC foils and its use in nuclear reaction measurements, G. Somogyi, I. Hunyadi, E. Koltay and L. Zolnai 147 (1977) 287

A gas-discharge ion source for an on-line electromagnetic mass separator at a heavy ion accelerator. Part I. Design and efficiency, N. S. Ivanov, A. P. Kabachenko, I. V. Kuznetsov and N. I. Tarantin . . . **147** (1977) 333
The flash tube discharge mechanism from a study of the digitization pulse output, J. M. Breare, P. J. Doe and B. C. Nandi . . . **147** (1977) 341
A novel ultra-high vacuum manipulator with six degrees of freedom, O. Auciello, C. Lulich, E. V. Alonso and R. A. Baragiola . . . **147** (1977) 349
High intrinsic efficiency, time-compensated scintillation detector, J. D. Carlson, R. W. Finlay and D. E. Bainum . **147** (1977) 353
Low exposure rate dependence of $CaSO_4$:Dy TLDs *(Letter to the Editor)*, P. P. Szabó . . . **147** (1977) 451
In response to "Low exposure rate dependence of $CaSO_4$:Dy TLDs" *(Letter to the Editor)*, P. C. Hsu and P. S. Weng . . . **147** (1977) 453
The use of silicon pin-photodiodes as a low-energy photonspectrometer, R. Nowotny and W. L. Reiter . . . **147** (1977) 477
HIAWATHA, a fission-fragment recoil mass spectrometer, G. Diiorio and B. W. Wehring . . . **147** (1977) 487
The use of CAMAC in testing a large proportional chamber readout system, M. Edwards and M. M. Przybylski **147** (1977) 605
Investigation of argon–ethylene mixtures for drift chambers, V. Palladino . . . **148** (1978) 35
A highly energy-selective activation detector for pulsed fusion neutron sources, R. H. Howell . . . **148** (1978) 39
Investigations of mineral insulated cables exposed to high temperature and intense gamma radiation, H. Böck and M. Suleiman . . . **148** (1978) 43
A miniature multi-channel pulse height analyzer with an LED matrix display, P. J. Bunge . . . **148** (1978) 51
A fast neutron detector with linear energy response, B. K. Kamboj, M. G. Shahani, U. V. Phadnis and D. Sharma **148** (1978) 57
Geiger-Mueller counter for mixed neutron–gamma beam dosimetry, J. C. McDonald and I-Chang Ma . . . **148** (1978) 61
Utilization of teflon-covered Ge(Li) diodes for fast neutron detection *(Letter to the Editor)*, A. Wolf and R. Moreh **148** (1978) 195
A small, low background proportional counter, F. O. Williamson and H. U. Zimmermann . . . **148** (1978) 231
A built-in potassium getter for the scintillation proportional counter, K. Koyama, H. Inoue and M. Matsuoka . . **148** (1978) 257
On the prestressing and deformation of rectangular particle detector frames, S. Margulies . . . **148** (1978) 261
A modern positron lifetime spectrometer, R. Myllylä . . . **148** (1978) 267
Improved time resolution in a positron lifetime spectrometer with the liquid scintillator NE238, R. Myllylä . . . **148** (1978) 273
A fast, bidimensional, positron-sensitive detection system for heavy ions, A. Breskin, T. Tserruya and N. Zwang . **148** (1978) 275
A position sensitive parallel plate avalanche detector (PPAD) for fission fragments, M. Just, D. Habs, V. Metag and H. J. Specht . . . **148** (1978) 283
Use of photodiodes for neutron dosimetry, K. Kovačević, N. Stipčić, G. Paić, I. Šlaus, B. Eman, V. Pečar and M. Antić . . . **148** (1978) 291
A thin-film scintillator detector for light ions in low-energy nuclear physics, K. Ettling and W. Von Witsch . . . **148** (1978) 299
A 1 m^2 gamma ray spark chamber telescope for the energy range 10–100 MeV, B. Parlier, B. Agrinier, E. Bonfand, B. Mougin, A. Lecomte, J. Andrejol, J. C. Courtois, M. Gorisse, J. M. Lavigne, M. Niel, G. Vedrenne and C. Doulade . . . **148** (1978) 483
A theoretical investigation into the efficiency characteristics of low pressure spark chambers, D. Majumdar . . . **148** (1978) 497
A novel zero time detector for heavy ion spectroscopy, J. D. Bowman and R. H. Heffner . . . **148** (1978) 503
The calibration of neutron instruments and dosimeters at intermediate energies, K. G. Harrison, J. R. Harvey and S. J. Boot . . . **148** (1978) 511

International Workshop on Mercuric Iodide and Cadmium Telluride Detectors

Jerusalem, June 7–8, 1977

Part I. CdTe

Current possibilities and limitations of cadmium telluride detectors, P. Siffert . . . **150** (1978) 1
Crystal growth of CdTe for γ-ray detectors, F. V. Wald and G. Entine . . . **150** (1978) 13
Advantages and limitations of n-type low resistivity cadmium telluride nuclear radiation detectors, A. J. Dabrowski, J. Iwańczyk, W. M. Szymczyk, P. Kokoschinegg, J. Stelzhammer and R. Triboulet . . . **150** (1978) 25
Extension of the depletion layer in cadmium telluride nuclear radiation detectors, P. Siffert, B. Rabin, H. Y. Tabatabai and R. Stuck . . . **150** (1978) 31
Defect creation rates in CdTe irradiated by electrons, M. Caillot . . . **150** (1978) 39
Gamma and electron radiation effects in CdTe, T. Taguchi, J. Shirafuji and Y. Inuishi . . . **150** (1978) 43
Biotelemetry of the glomerular filtration rate (GFR) in man by external detection of DTPA–(Sn)–^{99m}Tc with CdTe detectors, J. Bojsen and N. Rossing . . . **150** (1978) 49
The characterization of CdTe and HgI_2 crystals and detectors by light spot scanning (LSS), M. Slapa, P. A. Tove and G. Boberg . . . **150** (1978) 55

Part II. HgI_2

State-of-the-art of crystal growth and nuclear spectroscopic evaluation of mercuric iodide radiation detectors, M. Schieber, I. Beinglass, G. Dishon, A. Holzer and G. Yaron . . . **150** (1978) 71
Gamma-ray spectrometry with mercuric iodide detectors with application to medical imaging, S. Shalev . . . **150** (1978) 79

Direct current and pulse counting measurements on in-vivo mercuric iodide medical probes, S. Caine, A. Holzer, I. Beinglass, G. Dishon, E. Lowenthal and M. Schieber **150** (1978) 83
A novel pulse processing system for HgI_2 detectors, R. Kurz **150** (1978) 91
TSC in HgI_2 crystals grown by solution and vapor phase techniques, J. C. Muller, A. Friant and P. Siffert **150** (1978) 97
Photoelectronic properties of HgI_2, C. de Blasi, S. Galassini, C. Manfredotti, G. Micocci, L. Ruggiero and A. Tepore **150** (1978) 103

Neutron scintillating glasses, part III. Pulse decay time measurements at room temperature, E. J. Fairley and A. R. Spowart **150** (1978) 159
A triple focusing masse separator, S. Taya, K. Tokiguchi, I. Kanomata and H. Matsuda **150** (1978) 165
An on-line system of ionization chambers for the observation of short-lived fissionable nuclei, H. Gaeggeler, W. Seidel, G. S. Popeko, V. I. Smirnov, V. G. Subbotin, G. M. Ter-Akopian and L. P. Chelnokov **150** (1978) 173
Large area gridded ionisation chamber and electrostatic precipitator. Application to low-level alphaspectrometry of environmental air samples, H. Hötzl and R. Winkler **150** (1978) 177
Heavy ion transmission detector, M. L. Muga and D. J. Burnsed **150** (1978) 183
A hybrid spark chamber for measuring radionuclide distributions, T. Aoyama and T. Watanabe **150** (1978) 203
On the low-energy performance of the Munich PSD system, A. Chalupka, G. Stengl, M. R. Maier and P. Sperr **150** (1978) 209
The measured energy response of a 50 cm^3 Ge(Li) detector to photons from 4 to 10 MeV *(Letter to the Editor)*, D. F. Coope, R. Laszewski and L. E. Cannell **150** (1978) 341
Timing properties of coaxial HPGe detectors, B. C. Robertson and H. L. Malm **150** (1978) 401
The Lamb shift polarized ion source at the FN tandem Van de Graaff accelerator of the University of Cologne, V. Bechtold, L. Friedrich, P. Ziegler, R. Aniol, G. Latzel and H. Paetz gen. Schieck **150** (1978) 407
The manufacture and properties of two dimensional position sensitive orthogonal electrode silicon surface barrier detectors, J. S. Fleming **150** (1978) 417
Effect of induced clearing field on the performance of flash tubes, J. M. Breare, P. J. Doe and B. C. Nandi **150** (1978) 433
The influence of the kinetic energy of electron avalanches on the gas amplification factor of methane-filled proportional counters, H. Borst **150** (1978) 437
Szintillationsabklingen und Neutron-Gamma-Diskriminierungseigenschaften des schnellen Flüssigkeitsszintillators NE238 *(Letter to the Editor)*, R. Langkau **150** (1978) 593
Comparison of some gamma detectors and environmental measurement of small ^{41}Ar releases from a Triga reactor *(Letter to the Editor)*, B. Bärs and A. M. T. Kautto **150** (1978) 595
A simple position-sensitive parallel-plate avalanche detector with 2-dimensional readout, *(Letter to the Editor)*, R. C. Jared, P. Glässel, J. B. Hunter and L. G. Moretto **150** (1978) 597

Methods for Nuclear Spectroscopy

A high speed conveyor tube system for short-lived nuclide measurements, H.-J. Kreiner **141** (1977) 119
Polarimeter for threshold photoneutron spectroscopy, R. J. Holt, J. R. Specht, H. E. Jackson and R. M. Laszewski **141** (1977) 125
A Mössbauer spectrometer system with data processing capability, M. J. Graham, D. F. Mitchell and J. R. Phillips **141** (1977) 131
A solvent extraction device for use with radioisotopes, M. Ellinger, K. Starke and M. Janghorbani **141** (1977) 137
Pulsed high intensity monoenergetic low energy X-ray source and absolute X-ray monitor, J. H. Sparrow and C. E. Dick **141** (1977) 283
Dual-Parameter time and energy spectrometry in positron annihilation, P. Sen and I. K. MacKenzie **141** (1977) 293
Assay of fissile materials by a cyclic method of neutron activation and delayed-neutron counting, K. W. MacMurdo and W. W. Bowman **141** (1977) 299
A He-jet chopper for measuring half-lives of short-lived nuclei, M. D. Edmiston, R. A. Warner, Wm. C. McHarris and W. H. Kelly **141** (1977) 315
A bent crystal spectrometer geometry with a shadow source. *(Letter to the Editor)*, W. W. Sapp, Jr. **141** (1977) 391
The reflected beam sputter source, K. Brand **141** (1977) 519
Gamma-gamma polarized directional correlations set-up using a planar Ge(Li) detector as the polarimeter, A. Filevich, M. Behar and G. C. Bermúdez **141** (1977) 521
Polarization enhancement of an optically pumped ^3He target and a simple polarization measuring method, R. Beckmann, U. Holm and D. Müller **141** (1977) 525
Note on wire cathodes in multianode proportional counters, T. M. K. Marar **141** (1977) 529
A neutron diffractometer using position-sensitive BF_3 counters, O. J. Eder, B. Kunsch and G. P. Westphal **141** (1977) 533
High-sensitivity isotope analysis with a ^{252}Cf–^{235}U fueled subcritical multiplier and low background photon detector systems, N. A. Wogman, H. G. Rieck, Jr., J. C. Laul and K. W. MacMurdo **141** (1977) 539
Electro-optical stabilization of a subnanosecond lifetime spectrometer, J. Uyttenhove, D. Segers, M. Dorikens and L. Dorikens-Vanpraet **141** (1977) 549
Production and measurement of dispersion aerosols; application to the transport of deuteron-induced and ^{84}Kr-induced reaction recoils, W.-D. Schmidt-Ott, R.-D. von Dincklage and W. J. Hiller **141** (1977) 553

W.A.C.: An alternative method to measure positron annihilation parameters, M. Dorikens, C. Dauwe, D. Segers and L. Dorikens-Vanpraet **141** (1977) 561
Particle diagnosis of a fusion plasma *(Letter to the Editor)*, T. Elevant **141** (1977) 603

Proceedings of the International Conference on Particle Induced X-ray Emission and its Analytical Applications

Lund, Sweden, August 23–26, 1976

I. Technical developments. X-ray production and background processes

Automated analyses of environmental samples, T. A. Cahill **142** (1977) 1
Inner shell ionization research in the Institute of Nuclear Research in Debrecen, Hungary, A. Kövér **142** (1977) 5
Ionization cross sections for L-subshell X-rays in Pt, Au and Hg using proton bombardment, J. R. Chen **142** (1977) 9
Application of proton-induced X-ray emission to quantitative trace element analysis, H. Kaji, T. Shiokawa, K. Ishii, S. Morita, M. Kamiya, K. Sera and H. Tawara **142** (1977) 21
A PIXE system for air pollution studies in South America, C. Q. Orsini and L. C. Boueres **142** (1977) 27
PIXE work at the University of Manitoba, S. F. J. Wilk, J. S. C. McKee and C. P. Randell **142** (1977) 33
Trace element analysis by ion induced X-ray emission spectroscopy, B. Raith, M. Roth, K. Göllner, B. Gonsior, H. Ostermann and C. D. Uhlhorn **142** (1977) 39
Use of external beam in PIXE, A. S. Lodhi and P. Sioshansi **142** (1977) 45
Focussing of proton beams to micrometer dimensions, R. Nobiling, K. Traxel, F. Bosch, Y. Civelekoğlu, B. Martin, B. Povh and D. Schwalm **142** (1977) 49
A proton semi-microbeam device for surface analysis, D. Brune, U. Lindh and J. Lorenzen **142** (1977) 51

II. Matrix effects. Thick targets

The influence of matrix effects on absolute analysis using PIXE, P. M. A. van der Kam, R. D. Vis and H. Verheul . . **142** (1977) 55
Enhancement in PIXE analysis, M. S. Ahlberg **142** (1977) 61
Proton-induced X-ray emission analysis of thick and thin targets, R. D. Willis, R. L. Walter, R. W. Shaw Jr. and W. F. Gutknecht **142** (1977) 67
Calculation of proton-induced K-shell X-ray yield for distributed impurity atoms in bulk material, A. Kropf . . . **142** (1977) 79
A method of determining the depth of impurities by proton-induced X-rays, Q. Benka, M. Geretschläger and H. Paul **142** (1977) 83

III. Applications to airborne particulate matter

Sulfur and trace metal relationships in nonurban and marine aerosols studied using proton induced X-ray emission, J. W. Winchester **142** (1977) 85
Variation of elemental composition with particle size in the St. Louis aerosol, C. Q. Orsini, H. C. Kaufmann, K. R. Akselsson, J. W. Winchester and J. W. Nelson **142** (1977) 91
Monitoring aerosol elemental composition in particle size fractions for predicting human respiratory uptake, G. G. Desaedeleer, J. W. Winchester and K. R. Akselsson **142** (1977) 97
PIXE analysis of urban aerosols on heavy-loaded membrane filters, K. Kemp and F. Palmgren Jensen **142** (1977) 101
Elemental concentrations and particle size distributions in an atmospheric background aerosol, H. O. Lannefors, T. B. Johansson, L. Granat and B. Rudell **142** (1977) 105

IV. Use of heavy ions. Other methods used in conjunction with PIXE

High energy heavy-ion induced X-ray emission analysis, J. B. Cross, R. Zeisler and E. A. Schweikert **142** (1977) 111
Energy dispersive soft X-ray fluorescence analysis by radioisotopic α-particle excitation, R. Robertson **142** (1977) 121
Light element analysis by proton scattering, J. W. Nelson and W. J. Courtney **142** (1977) 127

V. Application to biological samples

Proton induced X-ray emission analysis of biological samples: some approaches and applications, N. F. Mangelson, M. W. Hill, K. K. Nielson and J. F. Ryder **142** (1977) 133
Elemental variations in whole blood following gamma radiation injury of mice, R. C. Bearse, C. E. Burns, D. A. Close and J. J. Malanify **142** (1977) 143
Proton-induced X-ray emission: applications in medicine, V. Valkovic **142** (1977) 151
Elemental trace analysis in serum using proton-induced X-ray fluorescence, R. D. Vis, P. M. A. van der Kam and H. Verheul **142** (1977) 159
Application of PIXE to trace element analysis in biological tissues, I. Hasselmann, W. Koenig, F. W. Richter, U. Steiner, U. Wätjen, J. C. Bode and W. Ohta **142** (1977) 163
Human diseases and trace elements: investigation by proton-induced X-ray emission, H. A. van Rinsvelt, R. D. Lear and W. R. Adams **142** (1977) 171
The application of proton-induced X-ray emission to bioenvironmental analyses, R. L. Walter, R. D. Willis, W. F. Gutknecht and R. W. Shaw, Jr. **142** (1977) 181

A study on proton-induced X-ray analysis and its application to environmental samples, T. Shiokawa, T. C. Chu, V. R. Navarrete, H. Kaji, G. Izawa, K. Ishii, S. Morita and H. Tawara **142** (1977) 199
Analysis of sulphur in plant material, P. Kump, P. Rupnik, M. Budnar and I. Kreft **142** (1977) 205
Protein quality of leguminous plants determined by proton-induced radiation analysis, P. Rupnik, P. Kump, M. Budnar and I. Kreft **142** (1977) 209

VI. Detectors and electron ics. Data handling

Some aspects of detectors and electronics for X-ray fluorescence analysis, F. S. Goulding **142** (1977) 213
Trace element analysis by means of particle induced X-ray emission with triggered beam pulsing, W. Koenig, F. W. Richter, U. Steiner, R. Stock, R. Thielmann and U. Wätjen **142** (1977) 225
Computer analysis of proton induced X-ray emission spectra, R. D. Willis and R. L. Walter **142** (1977) 231
A computer analysis of X-ray fluorescence spectra, P. van Espen, H. Nullens and F. Adams. **142** (1977) 243
REX – A computer programme for PIXE analysis, H. C. Kaufmann, K. R. Akselsson and W. J. Courtney . . **142** (1977) 251
Statistical techniques for handling PIXE data, T. A. Cahill, R. A. Eldred, R. G. Flocchini and J. Barone. **142** (1977) 259

VII. Specimen preparation. Liquid samples. Miscellaneous applications

Specimen preparation in PIXE analysis, J. L. Campbell **142** (1977) 263
Trace element analysis in liquids by proton induced X-ray emission, G. Deconninck **142** (1977) 275
Proton induced X-ray analysis of drinking water samples, P. Sioshansi, A. S. Lodhi and H. Payrovan **142** (1977) 285
PIXE analysis in viticulture and oenology, J. L. Campbell, B. H. Orr and A. C. Noble **142** (1977) 289
Ancient pottery analysis by proton bombardment and Mössbauer spectroscopy, J. Baijot-Stroobants and F. Bodart **142** (1977) 293
Analysis of meteoritic samples using proton induced X-rays, H. W. Kugel and G. F. Herzog **142** (1977) 301

VIII. Superheavy element detection by PIXE

The use of PIXE in generating evidence for primordial superheavy elements, T. A. Cahill, R. G. Flocchini, J. W. Nelson, N. R. Fletcher, H. C. Kaufmann and L. R. Medsker **142** (1977) 307

IX. Wavelength-dispersive detection

Applications of wavelength-dispersive spectrometry in particle induced X-ray emission analysis, R. L. Watson, A. K. Leeper and B. I. Sonobe **142** (1977) 311
Wavelength-dispersion analysis of PIXE spectra, R. D. Willis, R. L. Walter, B. L. Doyle and S. M. Shafroth . . . **142** (1977) 317

X. Comparison between PIXE and other analytical techniques

XRF analysis – Some sensitivity comparisons between charged-particle and photon excitation, F. S. Goulding and J. M. Jaklevic **142** (1977) 323
Comparison of sensitivities in trace element analysis obtained by X-ray excited X-ray fluorescence and proton induced X-ray emission, J. Scheer, L. Voet, U. Wätjen, W. Koenig, F. W. Richter and U. Steiner **142** (1977) 333

The ^{45}Se(p, n) reaction as a source of monoenergetic 10–50 keV neutrons, D. W. O. Rogers **142** (1977) 475
A low background detection system for neutron reaction experiments, D. R. Maxson, D. C. Palmer and J. R. Bading **142** (1977) 479
Concentration profile measurements in thin layers using multiply resonant nuclear reactions, M. Kregar, J. Müller, P. Rupnik and F. Špiler. **142** (1977) 495
The use of Fourier series in the deconvolution of experimental curves, A. Rotondi **142** (1977) 499
Mass-spectrometric determination of gases in individual coated HTR fuel particles. Part I: Set-up, procedure and performance, A. Strigl and H. Bildstein **142** (1977) 507
Mass-spectrometric determination of gases in individual coated HTR fuel particles. Part II: Optimum choice of heating and crushing conditions, A. Strigl and E. Proksch **142** (1977) 513
Isotope resolution of the iron peak, R. P. Henke and E. V. Benton **142** (1977) 521
A pulse shape selection method to improve the timing properties of a large Ge(Li)-detector, H. Engel, H. Schneider and R. Spitz **142** (1977) 525
Improved mass resolution with a standard $\Delta E \times E$ counter telescope, R. J. Puigh and K. W. Kemper **142** (1977) 531
Ion beam studies. Part IV: The use of multiply-charged and polyatomic ions in an implantation accelerator, J. H. Freeman, D. J. Chivers and G. A. Gard **143** (1977) 99
Determination of the ^{235}U content in enriched samples by the fission track registration technique, O. Y. Mafra, M. F. Cesar, L. P. Geraldo, E. M. Tanaka and C. Renner **143** (1977) 117
A double neutron monochromator with periodically bent single crystals, R. T. Michalec, P. Mikula and J. Vávra . **143** (1977) 121
A high temperature, ultra high vacuum facility for heavy ion simulation of neutron radiation damage to potential reactor materials, H. Vernon Smith Jr. and R. G. Lott **143** (1977) 125

Extraction of ultracold neutrons from high flux reactor SM-2, Yu. Yu. Kosvintsev, E. N. Kulagin, Yu. A. Kushnir, V. I. Morozov and A. V. Strelkov . . . 143 (1977) 133
Effect of imperfect beam modulation in neutron time of flight spectroscopy using mechanical correlation choppers, C. A. Pelizzari and T. A. Postol . . . 143 (1977) 139
A method for measuring power signal background and source strength in a fission reactor *(Letter to the Editor)*, B. Bärs, L. Kåll and P. Visuri . . . 143 (1977) 199
Neutron analysis of high purity metals, G. Revel and M. Fedoroff . . . 143 (1977) 277
Proposed cosmic ray carbon to nickel isotope experiment, J. F. Arens . . . 143 (1977) 285
The $^{9}Be(d,n)^{10}B$ reaction as a source of polarized neutrons from a low energy accelerator, B. S. Bains and R. B. Galloway . . . 143 (1977) 295
Precision alpha-counting methods for determination of radon daughters in air, P. Kritidis, I. Uzunov and L. Minev . . . 143 (1977) 299
A neglected mechanism in the interpretation of conversion electron Mössbauer spectra, M. J. Tricker, L. A. Ash and T. E. Cranshaw . . . 143 (1977) 307
Use of optical filters to improve lead glass shower counter resolution, R. J. Morrison, J. Cumalat, A. M. Eisner and C. Lauer . . . 143 (1977) 311
A simple method for determining absolute disintegration rates for some radionuclides, J. K. Dickens . . . 143 (1977) 315
An X-ray topographic study of large crystals for a bent-crystal gamma diffractometer, L. Jacobs and M. Hart . . . 143 (1977) 319
Charge exchange collisions of deuterium in a rubidium vapor target, R. J. Girnius, L. W. Anderson and E. Staab . . . 143 (1977) 505
Technique for painting light integration boxes, S. P. Ahlen, B. G. Cartwright and G. Tarlé . . . 143 (1977) 513
On-line apparatus bandit for half–life determination of short-lived neutron deficient isotopes, A. Hardt, J. Bisplinghoff, J. Ernst, R. Löhr, H. Machner and T. Mayer-Kuckuk . . . 143 (1977) 519
Evaluating PtSi front contact to surface barrier detectors, S. Petersson, E. Mgbenu, H. Norde and P. A. Tove . . . 143 (1977) 525
4π scintillation system for low beta-activity counting, Ch. Kamburov, I. Vancov and S. Avramov . . . 143 (1977) 537
The evaluation of ^{57}Fe and ^{119}Sn Mössbauer spectra *(Letter to the Editor)*, W. Hofmann, H. Keller and W. Kündig . . . 143 (1977) 609
Ion beam studies, Part V: The computer simulation of composite ion implantation profiles, J. H. Freeman and D. V. Booker . . . 144 (1977) 175
Spark chamber and time-of-flight detector for 15–150 MeV neutrons from an extended source, A. D. Zych, M. A. Nazaretz, J. S. Vogel, P. Albats, G. M. Frye, Jr., R. S. Schreiner and G. B. Thomson . . . 144 (1977) 183
Three-Ge(Li) compton polarimeter with kinematic selection, J. Kasagi, N. Kishida and H. Ohnuma . . . 144 (1977) 201
Limits to the applicability of commonly used pulse-shape figures of merit and possible alternative measures of performance, J. H. Thorngate and M. M. Abd el-Razek . . . 144 (1977) 209
On the determination of fast neutron spectra with activation techniques: Its application in a fusion reactor blanket model, L. Kuijpers, R. Herzing, P. Cloth, D. Filges and R. Hecker . . . 144 (1977) 215
Scattering technique for electron Mössbauer spectroscopy, M. Carbucicchio . . . 144 (1977) 225
The application of two dimensional scanning to light element mapping with the nuclear microprobe, T. B. Pierce and J. Huddleston . . . 144 (1977) 231
Combined ion, electron, and X-ray beams for studies of surfaces and thin films, R. G. Musket . . . 144 (1977) 241
Aerosols in a gas-jet transport system, H. Wollnik, J. Porstendörfer, G. Röbig and H. G. Wilhelm . . . 144 (1977) 247
Delayed-neutron spectroscopy with ^{3}He spectrometers, H. Franz, W. Rudolph, H. Ohm, K.-L. Kratz, G. Herrmann, F. M. Nuh, D. R. Slaughter and S. G. Prussin . . . 144 (1977) 253
Efficiency calibration of a Si(Li) detector at photon energies below 5 keV *(Letter to the Editor)*, G. Hubricht, B. Knaf, G. Presser and J. Stähler . . . 144 (1977) 359
Spatial absorbed-dose distribution in water, C and Al for 25 MeV electrons, T. Yamazaki, T. Tomimasu, T. Mikado, M. Chiwaki and S. Sugiyama . . . 144 (1977) 515
Automatic spectrometer of 2- and 3-quanta annihilation of $e^{+}e^{-}$ pairs, J. Dworakowski, J. Filipecki, T. Kuderska and J. Kukułka . . . 144 (1977) 525
A multicounter system for scanning ultra-low-level radiochromatograms, L. Bøtter-Jensen, H. J. M. Hansen and P. Theodorsson . . . 144 (1977) 529
Recording streamer chamber tracks with charge coupled devices, F. Villa and L. C. Wang . . . 144 (1977) 533
The detection of hard X-rays (10–140 keV) by channel plate electron multipliers, J. E. Bateman . . . 144 (1977) 537
Errors and mistakes in the traditional optimum design of experiments on exponential absorption, E. J. Burge . . . 144 (1977) 547
The use of a many-capillary gas jet system for nuclear spectroscopic measurements at a recoil fission product separator, H. Wollnik, B. Pfeiffer, J. P. Bocquet and F. Schussler . . . 144 (1977) 565
Application on track detectors to the measurement of sputtering yields *(Letter to the Editor)*, R. Gregg, Z. E. Switkowski and T. A. Tombrello . . . 144 (1977) 613
Performance of an energy–mass spectrograph for heavy ions, H. A. Enge and D. Horn . . . 145 (1977) 271
The Durham extensive air shower array – I: A description, W. S. Rada, E. A. M. Shaat, A. C. Smith, T. R. Stewart, M. G. Thompson and M. W. Treasure . . . 145 (1977) 283
The Durham extensive air shower array – II: Data analysis, A. C. Smith and M. G. Thompson . . . 145 (1977) 289
γ-Ray multiplicities from nuclear reactions: Theory, instrumentation and analysis, L. Westerberg, D. G. Sarantites, R. Lovett, J. T. Hood, J. H. Barker, C. M. Currie and N. Mullani . . . 145 (1977) 295

Critical investigations on the methods determining the degree of polarization of subthermal neutrons, W. Vorbrugg **145** (1977) 311
Calibration of dePangher long counter from 2 keV to 19 MeV, D. R. Slaughter and D. W. Rueppel **145** (1977) 315
Fractional charge collection technique for pile-up reduction – counting low intensity radiation in presence of intense gamma-ray and neutron background, D. Vartsky, B. J. Thomas and W. V. Prestwich **145** (1977) 321
Diskriminierung von Neutronen und Gammaquanten, R. Buchmüller **145** (1977) 331
NE-213 neutron spectrometry system for measurement from 1.0 to 20 MeV, R. H. Johnson, D. T. Ingersoll, B. W. Wehring and J. J. Dorning **145** (1977) 337
Depth profiling of oxygen in oxidized ceramic Si_3N_4 with the backscattering technique, J. M. Lombaard and O. Meyer **145** (1977) 347
An in-beam Ge(Li)–NaI(Tl) Compton suppression spectrometer, R. Beetz, W. L. Posthumus F. W. N. De Boer J. L. Maarleveld, A. Van Der Schaaf and J. Konijn **145** (1977) 353
A novel method of Mössbauer data calibration using a laser interferometer, D. W. Carson. **145** (1977) 359
A totally absorbing time-of-flight neutron detector, J. B. Czirr and D. W. Shosa **145** (1977) 465
Ion beam studies, part VI: The production of heavy ion beams, J. H. Freeman, D. J. Chivers, G. A. Gard and W. Temple **145** (1977) 473
Dynamic implant profiling by low-energy nuclear reactor spectroscopy, D. F. Cowgill **145** (1977) 507
Effect of the base line shape on the unfolding of peaks in the Ge(Li) gamma-ray spectrum analysis, H. Baba, S. Baba and T. Suzuki **145** (1977) 517
Absorption of high energy electrons in liquid nitrogen, H. Kato, R. Ono and R. Kato **145** (1977) 529
A new method of determining the total flux of environmental gamma radiation by a $2''\varnothing \times 2''$ NaI(Tl) scintillation counter *(Letter to the Editor)*, S. Minato **146** (1977) 459
A simple and accurate method for bidimensional position read-out of parallel plate avalanche counters *(Letter to the Editor)*, A. Breskin and N. Zwang. **146** (1977) 461
An ionisation wedge for simulation of the solar flare spectrum, S. K. Gupta, D. Lal and M. N. Rao **146** (1977) 497
Fission detectors as secondary standards for the measurement of fast neutron fluence, J. C. H. Miles and A. G. Sherwin **146** (1977) 503
A rapid method for the determination of dose equivalent in mixed radiation fields, S. Pszona and M. Höfert **146** (1977) 509
A devised light absorption method for measuring fast neutron fluences and gamma doses in mixed radiation fields using a cellulose acetate detector, M. A. Fadel and S. A. Kasim **146** (1977) 513
β-scintillation monitor for Krypton-85 at high pressures, D. M. Levins, R. W. Glass, M. M. Chiles, D. J. Inman and D. C. Watkin **146** (1977) 517
Reactor neutron detection using activation and fission fragment track detectors, M. A. Gomaa and M. A. Hamdan . **146** (1977) 527
A comparison of two methods of pulse-shape discrimination for alpha–gamma separation with trans-stilbene, G. Shani and M. Cojocaru **146** (1977) 531
Numerical integration of electromagnetic cascade equations, discussion of results for air, copper, iron, and lead *(Letter to the Editor)*, D. Adler, B. Fuchs and K. O. Thielheim **146** (1977) 601
Loss-free counting — A concept for real-time compensation of dead-time and pile-up losses in nuclear pulse spectroscopy *(Letter to the Editor)*, G. P. Westphal **146** (1977) 605
Cryogenic helium jet and recoil time-of-flight apparatus, R. G. H. Robertson, T. J. Bowles and S. J. Freedman . . **147** (1977) 361
A gas-jet recoil-transport system for fission products and its application to a continuous chemical separation procedure in the gas phase, R. J. Silva, N. Trautmann, M. Zendel, P. F. Dittner, E. Stender and H. Ahrens **147** (1977) 371
Heating and diagnostics by induced poloidal currents in a rotating plasma, D. Ohlsson **147** (1977) 379
Results of the first measurements and a comment on a new atomic-beam magnetic-resonance spectrometer, E. Aygün **147** (1977) 393
An empirical method of quantitative analysis in depth-selective ME-spectroscopy, Tsv. Bonchev, A. Minkova, G. Kushev and M. Grozdanov **147** (1977) 481
Use of the $^{27}Al(p,\gamma)^{28}Si$, $E_p = 992$ keV resonance as a gamma-ray intensity standard, A. Anttila, J. Keinonen, M. Hautala and I. Forsblom **147** (1977) 501
Gamma ray attenuation measurements, P. P. Kane, G. Basavaraju and K. M. Varier **147** (1977) 507
A system for stabilizing the gain of a scintillation spectrometer using a light-emitting diode and a processor in feedback, R. Martinčič, V. Ivković and M. Tiringer **147** (1977) 513
Time-of-flight pulsed neutron diffraction of liquids using an electron linac, K. Suzuki, M. Misawa, K. Kai and N. Watanabe **147** (1977) 519
Production of 15–90 keV negative heavy ions by charge exchange with Mg vapour, J. Heinemeier and P. Hvelplund **148** (1978) 65
Radiative capture cross section measurements for fast neutrons using a large Gd-loaded liquid scintillator, S. K. Gupta, J. Frehaut and R. Bois **148** (1978) 77
In-situ detection of radiation blistering and dynamic deuterium depth profiling during D^+ bombardment of solids, P. B. Johnson and T. R. Armstrong **148** (1978) 85
In-flight mass separation of ^{205}Rn, ^{206}Rn and ^{207}Rn fusion recoils from the $^{197}Au(^{14}N, xn)$ reaction using an energy–mass spectrograph, N. Tsoupas, E. Cosman, A. Sperduto, G. Young, H. Enge and M. Salomaa **148** (1978) 93
A hybrid static/dynamic heating technique for the measurement of nuclear Doppler effects, G. J. Russell, S. K. Bhattacharyya and W. K. Foell **148** (1978) 99

Folding of proton size in nuclear structure calculations, R. P. Singhal, M. W. S. MaCauley and P. K. A. De Witt Huberts 148 (1978) 113
Detection system for charged particles produced by neutrons, K. R. Alvar, H. H. Barschall, R. R. Borchers, S. M. Grimes and R. C. Haight 148 (1978) 303
Radiation damage in polarized target materials, R. C. Fernow 148 (1978) 311
Réalisation et mise au point d'un ensemble de coincidences γ–γ biparamétrique; Application: mesures précises d'intensité de transition γ, A. Traverse et P. Berthe 148 (1978) 317
Theoretical model of light-pulse propagation in pipes verified by single-photon technique, F. Calligaris, P. Ciuti, I. Gabrielli and R. Giacomich 148 (1978) 323
Spin assignments in low-energy neutron-capture reactions using polarized neutrons and oriented target nuclei, J. J. Bosman and H. Postma 148 (1978) 331
Experiment on the efficient polarization of ultracold neutrons, R. Herdin, A. Steyerl, A. R. Taylor, J. M. Pendlebury and R. Golub 148 (1978) 353
An air light guide, plastic scintillation counter, M. Poulet and A. Santroni 148 (1978) 359
Neutron beam facility at the Louvain-la-Neuve isochronous cyclotron; cross sections for fast neutron production, C. Pirart and G. Valenduc 148 (1978) 363
Lifetime measurements of nuclear levels with the charge plunger technique, G. Ulfert, D. Habs, V. Metag and H. J. Specht 148 (1978) 36
An improvement of the correlation time-of-flight method by source pulsing, F. Hossfeld 148 (1978) 381
A low energy implantation system for the fabrication of Mn-implanted ZnS electroluminescent films, C. Lawther, K. V. Anand and B. Fakhouri 148 (1978) 389
The Durham air showers array – III: Evaluation of the array's response to showers, A. C. Smith 148 (1978) 521
Pulse-shape discrimination of high-energy neutrons and gamma rays in NaI(Tl), G. H. Share, J. D. Kurfess and R. B. Theus 148 (1978) 531
Thermal neutron standard field with a Maxwellian distribution using the KUR heavy water facility, K. Kanda, K. Kobayashi, S. Okamoto and T. Shibata 148 (1978) 535
Selektive Gewinnung kurzlebiger neutronendefiziter Nuklide des Yttriums, Strontiums und Rubidiums bei Verwendung von Molybdän bzw. Zirkonium als on-line Festkörpertargetmaterial, G. J. Beyer, O. Knotek, M. Jachim, J. Jushkevič und A. F. Novgorodov 148 (1978) 543
Experimental calibration of a collimated NaI detector using large diameter sources, G. B. Bishop and M. E. Abookazemi 148 (1978) 553
The relation photoionization cross section measurement by X-ray detection, C. Chang and W. Su 148 (1978) 561
Moment method in dynamics of charged particle beams, A. D. Dymnikov and E. A. Perelshtein 148 (1978) 567
On-line Mössbauer measurements at low temperatures of ^{83m}Kr implanted into Al, P. Gütlich, R. Link, T. Fritsch and G. K. Wolf 148 (1978) 573

Proceedings of the Third International Conference on Ion Beam Analysis

Washington, D.C., June 27–July 1, 1977

Part I. Light element profiling

^{15}N hydrogen profiling: scientific applications, W. A. Lanford 149 (1978) 1
The application of nuclear reactions for quantitative hydrogen analysis in a variety of different materials problems, G. J. Clark, C. W. White, D. D. Allred, B. R. Appleton, F. B. Koch, and C. W. Magee 149 (1978) 9
Profiling hydrogen in materials using ion beams, J. F. Ziegler, C. P. Wu, P. Williams, C. W. White, B. Terreault, B. M. U. Scherzer, R. L. Schulte, E. J. Schneid, C. W. Magee, E. Ligeon, J. L'Ecuyer, W. A. Lanford, F. J. Kuehne, E. A. Kamykowski, W. O. Hofer, A. Guivarc'h, C. H. Filleux, V. R. Deline, C. A. Evans, Jr., B. L. Cohen, G. J. Clark, W. K. Chu, C. Brassard, R. S. Blewer, R. Behrisch, B. R. Appleton, and D. D. Allred 149 (1978) 19
The H(t,n)^{3}He reaction for depth profiling of hydrogen by neutron time-of-flight, J. C. Davis, H. W. Lefevre, C. H. Poppe, D. M. Drake, and L. R. Veeser 149 (1978) 41
Using the proton backscattering method of light element profiling to achieve tailored low Z impurity distributions in solids, R. S. Blewer 149 (1978) 47
The replacement of ^{3}He implanted in Nb by subsequent ^{4}He bombardment and vice versa, J. Roth, B. M. U. Scherzer, R. Behrisch and P. Børgesen 149 (1978) 53
Depht profiling of deuterium implanted into stainless steel at room temperature, C. J. Altstetter, R. Behrisch, J. Bøttiger, F. Pohl and B. M. U. Scherzer 149 (1978) 59
Depth profiling of helium concentrations in materials using the ^{4}He(^{7}Li, γ)^{11}B reaction, R. L. Schulte 149 (1978) 65
Charged particle analysis of light elements by total energy coincident measurement of complementary particles, R. Pretorius and M. Peisach 149 (1978) 69
Diffusion studies by means of nuclear reaction depth profiling, W. Möller, M. Hufschmidt and Th. Pfeiffer . . . 149 (1978) 73
Low energy p–Be nuclear reactions for depth-profiling Be in alloys, P. P. Pronko, P. R. Okamoto and H. Wiedersich 149 (1978) 77

Recent developments in nuclear microprobe analysis, particularly the determination of beryllium distributions in metals, J. W. McMillan, P. M. Hirst, F. C. W. Pummery, J. Huddleston and T. B. Pierce **149** (1978) 83
The use of neutron induced reactions for light element profiling and lattice localization, J. P. Biersack, D. Fink, R. Henkelmann and K. Müller **149** (1978) 93
The use of hydrogen and deuterium implantation to investigate some aspect of defect-impurity interactions in metals, E. Ligeon, J. P. Bugeat and A. C. Chami **149** (1978) 99

Part II. Energy loss and straggling

Chemical influences on the stopping power, W. Neuwirth, W. Pietsch and R. Kreutz **149** (1978) 105
Energy loss of He ions in solidified gases, W. K. Chu, M. Braun, J. A. Davies, N. Matsunami and D. A. Thompson . **149** (1978) 115
Stopping power and straggling of 65–500 keV lithium ions H_2, He, CO_2, N_2, O_2, Ne, Ar, Kr, and Xe, H. H. Andersen, F. Besenbacher and H. Knudsen **149** (1978) 121
The calculation of low energy He ion stopping powers, J. F. Ziegler **149** (1978) 129
An improved method for measuring relative stopping powers of light ions in solids, H. H. Andersen, H. Knudsen and V. Martini **149** (1978) 137
Theoretical interpretations of the energy dependence of electronic stopping power, J. G. Brennan, D. J. Land, M. D. Brown and D. G. Simons **149** (1978) 143
Energy loss of light 300 keV ions in thin metal foils, P. Mertens **149** (1978) 149
A new method for the determination of low-energy stopping powers of hydrogen and helium, A. Lurio, J. F. Ziegler and J. J. Cuomo **149** (1978) 155
Stopping cross sections for protons of 350–650 keV in Au, by a new method, D. Semrad and P. Bauer **149** (1978) 159
Precision stopping cross section measurement of gold for ^{4}He, S. Matteson, J. M. Harris, R. Pretorius and M.-A. Nicolet **149** (1978) 163
Lithium ion production and use for backscattering analysis in aluminum and aluminum oxide media, J. P. Thomas and M. Fallavier **149** (1978) 169
The energy straggling of protons in thin metal foils at 0.35, 1.0 and 1.75 MeV, W. Möller and U. Nocken **149** (1978) 177
Effective beam energy spreads with molecular ion beams, J. W. Buttler and C. M. Davisson **149** (1978) 183
Analysis of straggling measurements by the backscattering technique, D. K. Brice and R. A. Langley **149** (1978) 191
Energy straggling of protons in carbon, R. A. Langley and D. K. Brice **149** (1978) 195
Study of energy loss $\Delta E(\theta)$ as function of emergence angle for neon and argon ions on carbon foils, G. Bea uchemin and R. Drouin **149** (1978) 199

Part III. Scattering analyses

The application of high-resolution Rutherford backscattering techniques to near-surface, J. S. Williams **149** (1978) 207
The determination of high-dose implantation profiles using low-angle Rutherford backscattering, C. E. Christodoulides, W. A. Grant and J. S. Williams **149** (1978) 219
The rotating sample technique for measurement of random backscattering yields from crystals and its application to alumina, P. Blood, L. C. Feldman and G. L. Miller **149** (1978) 225
Tilting angle dependence of Rutherford backscattering: uniformity of near surface layers, S. U. Campisano, G. Ciavola, E. Costanzo, G. Foti and E. Rimini **149** (1978) 229
Improved depth resolution of channeling measurements in Rutherford backscattering by a detector tilt, G. Mezey, E. Kotai, T. Lohner, T. Nagy, J. Gyulai and A. Manuaba **149** (1978) 235
Applications of the scattering spectrometry with fast protons (5–8 MeV) and heavy ions (15.25 MeK) to special analysis problems, P. Müller, W. Szymczak and G. Ischenko **149** (1978) 239
Polycrystalline film target texture and nuclear backscattering analysis, H. H. Andersen, K. N. Tu and J. F. Ziegler . **149** (1978) 247
The use of nitrogen ion backscattering for the analysis of metal impurities in a Tokamak plasma, G. Dearnaley, G. M. McCracken, J. F. Turner and J. Vince **149** (1978) 253
Comparison of xenon retention in ion implanted silicon dioxide and oxygen-doped silicon, W. Wach and K. Wittmaack **149** (1978) 259
Kinetics of drift and thermal diffusion of gold electrodes into amorphous semiconductor thin films, J. P. Thomas, J. M. Mackowski and J. Tousset **149** (1978) 265

Part IV. Analysis by nuclear reactions

The use of ^{6}Li and ^{35}Cl ion beams in surface analysis, J. L'Ecuyer, C. Brassard, C. Cardinal and B. Terreault . . **149** (1978) 271
The use of ^{12}C(d, p)^{13}C and ^{16}O(d, p)^{17}O reactions to profile carbon and oxygen in solids, J. A. Borders and J. M. Harris **149** (1978) 279
Oxygen distribution profiles in thin evaporated contacts on single crystal silicon, S. Petersson, H. Norde, G. Possnert and B. Orre **149** (1978) 285
Low concentration oxygen depth profiling by the ^{16}O(d, α)^{14}N reaction, S. T. Picraux **149** (1978) 289
Nuclear reaction analysis of ^{16}O concentration profiles with a high-resolution magnetic spectrometer, J. K. Hirvonen and W. H. Lucke **149** (1978) 295

Measurement of oxygen and nitrogen profiles in steel, A. Niiler and R. Birkmire **149** (1978) 301
Beryllium analysis of simulated aerosol samples by proton scattering, G. M. Hudson, H. C. Kaufmann, J. W. Nelson and W. J. Courtney **149** (1978) 307
Determination of fluorine in food samples by the $^{19}F(p, p'\gamma)^{19}F$ reaction, R. E. Shroy, H. W. Kraner, K. W. Jones, J. S. Jacobson and L. I. Heller **149** (1978) 313
$^{27}Al(p, \alpha_0)^{24}Mg$ resonance profiling of aluminum in silicon-on-sapphire materials, K. L. Dunning **149** (1978) 317
Ion beam analysis in relation to the physical properties of diamond, J. P. F. Sellschop, H. J. Annegarn, R. J. Keddy, C. C. P. Madiba and M. J. Renan **149** (1978) 321
The measurement of pore size in porous and micro-porous materials using resonant ion beam backscattering, B. H. Armitage, J. D. F. Ramsay and F. P. Brady **149** (1978) 329
Analysis using ion induced gamma rays, J. R. Bird, M. D. Scott, L. H. Russell and M. J. Kenny **149** (1978) 336
The use of the $^{14}N(d, p_0)^{15}N$ reaction for studies of nitrogen depth distribution in grains of barley and in samples of chromium steel, L. Gönczi, H. Berggren, R. Didriksson, B. Sundqvist and U. Lindh **149** (1978) 337

Part V. Surface and defect studies by channeling

Studies of defects and surfaces by channeling, J. H. Barrett **149** (1978) 341
Surface studies of W(100) by MeV H scattering, R. A. Zuhr, L. C. Feldman, R. L. Kauffman and P. J. Silverman . **149** (1978) 349
Surface layer analysis by MEIS using a solid state detector, D. Hoonhout, C. B. W. Kerkdijk, R. S. Bhattacharya, H. H. Kersten, W. C. Turkenburg and F. W. Saris **149** (1978) 355
Dechanneling theory for axial and planar conditions, Y. H. Ohtsuki, T. Omura, H. Tanaka and M. Kitagawa . . . **149** (1978) 361
Channeling analysis of radiation disorder in ion implanted vanadium and molybdenum single crystals G. Linker **149** (1978) 365
Channeling analysis of stacking defects in epitaxial Si layers S. U. Campisano, G. Foti, E. Rimini and S. T. Picraux **149** (1978) 371
Channeling effect studies in V_3Si single crystals, O. Meyer **149** (1978) 377
The effect of twins on dechanneling a charged particle beam, G. Foti, L. Csepregi, E. F. Kennedy, J. W. Mayer, P. P. Pronko and M. D. Rechtin **149** (1978) 381
Channeling dips for Si K and L X-ray yield, A. Lurio, J. Keller and W. K. Chu **149** (1978) 387
Recent lattice location results for implanted impurities in beryllium metal, R. Vianden and E. N. Kaufmann **149** (1978) 393
Displacement of Group III, IV, V and VI impurities in Si by the analyzingbeam, L. W. Wiggers and F. W. Saris . . **149** (1978) 399
Channeling studies on the trapping of deuterium in vanadium by oxygen interstitials, K. Ozawa, S. Yamaguchi, Y. Fujino, O. Yoshinari, M. Koiwa and M. Hirabayashi **149** (1978) 405
Application of particle channeling to the study of a cooperative Jahn–Teller phase transition in nickel chromite, D. Kollewe and W. M. Gibson **149** (1978) 411
A structure modeling of metal–silicide layers by using axial and planar channeling techniques, H. Ishiwara, M. Nagatomo and S. Furukawa **149** (1978) 417
Channeling analysis of disorder structure in neon implanted silicon, A. Turos, L. Wieluński, M. Wieluński and B. Wojtowicz-Natanson **149** (1978) 421
On the determination of the nature of defect clusters in irradiated metals by Rutherford backscattering, M. K. Agrawal and D. K. Sood **149** (1978) 425
Statistical equilibrium spatial density in planar channeling, J. A. Ellison and S. T. Picraux **149** (1978) 429
Energy and temperature dependences of dechanneling by displaced atoms, N. Matsunami, T. Goto and N. Itoh . . . **149** (1978) 430

Part VI. Analysis by ion induced X-rays

Sensitivity, quality assurance, and cost in automated analysis via ion induced X-rays, T. A. Cahill **149** (1978) 431
Thick sample analysis by ion induced X-rays, P. Baeri, S. U. Campisano, G. Immé, E. Rimini and G. Della Mea . . . **149** (1978) 435
Using proton-induced X-rays to determine three parameters of the depth profile of foreign atoms in bulk material, O. Benka, M. Geretschläger and A. Kropf **149** (1978) 441
Effect of fluorescence on the determination of depth distributions by ion-induced X-rays, A. R. Knudson **149** (1978) 445
The chemical state of particulate sulfur in ambient aerosols determined by PIXE analysis, M. S. Ahlberg, A. C. D. Leslie and J. W. Winchester **149** (1978) 451
Use of ion-induced X-rays to locate ion-implanted impurities in gallium arsenide, M. Takai, K. Gamo, H. Yagita, K. Masuda, S. Namba and A. Mizobuchi **149** (1978) 457
Study of the X-ray emission induced by 4 to 30 MeV protons or alpha particles, with a view to analytical application, M. Poncet and C. Engelmann **149** (1978) 461
Sensitivity of the external beam PIXE elemental analysis method, A. Katsanos and A. Hadjiantoniou **149** (1978) 469
Advantages of heavy ions for high-resolution microscopy, F. W. Martin **149** (1978) 475
Surface analysis by argon ion induced X-ray fluorescence, Ch. Heitz, M. Kwadow and D. Tenorio **149** (1978) 483
Comparison of the elemental composition of normal and diseased human tissues by PIXE analysis, J. A. Guffey, H. A. Van Rinsvelt, R. M. Sarper, Z. Karcioglu, W. R. Adams and R. W. Fink **149** (1978) 489
Detection sensitivities in proton and electron induced X-ray spectroscopy, W. Reuter and A. Lurio **149** (1978) 495
The use of proton-excited X-rays for thin-film profiling, A. B. Campbell and B. D. Sartwell **149** (1978) 496

Part VII. Ion induced optical emission and SIMS

Ion induced optical emission for surface and depth profile analysis, C. W. White . . . 149 (1978) 497
Ion-excited UV lines useful for materials analysis, A. R. Knudson, D. J. Nagel, J. Comas and K. W. Hill . . . 149 (1978) 507
Backscattering of excited hydrogen from Mo in the presence of oxygen, E. O. Rausch and E. W. Thomas . . . 149 (1978) 511
Orientation of fast ions excited in surface collisions, H. G. Berry, G. Gabrielse and A. E. Livingston . . . 149 (1978) 517
The use of sputter-induced emission spectroscopy for the analysis of hydrogen in solids, I. S. T. Tsong and R. B. Liebert . . . 149 (1978) 523
Hydrogen ion implantation profiles as determined by SIMS, C. W. Magee and C. P. Wu . . . 149 (1978) 529
A simple axially-symmetric quadrupole SIMS spectrometer, W. O. Hofer and F. Thum . . . 149 (1978) 535
Quantitative analysis of oxygen in thin epitaxial layers of GaAs by SIMS, A. M. Huber, G. Morillot, N. T. Linh, J. L. Debrun and M. Valladon . . . 149 (1978) 543
Energy analyzed secondary ion mass spectroscopy and simultaneous Auger and XPS measurements of ion bombarded surfaces, A. R. Krauss and D. M. Gruen . . . 149 (1978) 547
An attempt to understand preferential sputtering, R. Kelly . . . 149 (1978) 553
Isotope effect in the study of H–W(100) and O–W(100) chemisorption systems using SIMS, M. L. Yu . . . 149 (1978) 559
An attempt to understand secondary photon emission, R. Kelly, C. J. Good-Zamin, M. T. Shehata and D. B. Squires . . . 149 (1978) 563
Improvements in the chemistry of secondary ion mass spectrometry – negative ion techniques, P. Williams, R. K. Lewis, C. A. Evans, Jr., and P. R. Hanley . . . 149 (1978) 567

Part VIII. Low-energy backscattering and ISS

Low-energy ion scattering (LEIS) for composition and structure analysis of the outer surface, H. H. Brongersma and T. M. Buck . . . 149 (1978) 569
Angular variations of backscattering yield with 20 keV proton bombardment, T. Ichinokawa, T. Kawamura, H. Nakamura, F. Fujimoto and K. Komaki . . . 149 (1978) 577
Displacement of ion scattering peaks from positions predicted by binary scattering, H. F. Helbig, P. J. Adelmann, A. C. Miller and A. W. Czanderna . . . 149 (1978) 581
Oscillatory scattered ion yields from nonconductive materials, D. L. Christensen, V. G. Mossotti, T. W. Rusch and R. L. Erickson . . . 149 (1978) 587
Comparison of a time-of-flight system with an electrostatic analyzer in low-energy ion scattering, T. M. Buck, G. H. Wheatley, G. L. Miller, D. A. H. Robinson and Y.-S. Chen . . . 149 (1978) 591
Surface analysis using medium energy ion and neutral scattering, S. A. Agamy and J. E. Robinson . . . 149 (1978) 595
The charge state of He and Ne backscattered from Ni in the energy range of 1.5–15 KeV, W. Eckstein, V. A. Molchanov and H. Verbeek . . . 149 (1978) 599
Investigation of ion impact desorption of atoms and molecules by low energy ion scattering (ISS), E. Taglauer, U. Beitat and W. Heiland . . . 149 (1978) 605

Part IX. Combined techniques

New developments in non-vacuum analysis, G. Deconninck and F. Bodart . . . 149 (1978) 609
Investigation of dislocations by backscattering spectrometry and transmission electron microscopy, W. F. Tseng, J. Gyulai, T. Koji, S. S. Lau, J. Roth and J. W. Mayer . . . 149 (1978) 615
Use of ion beam techniques to characterize thin plasma grown GaAs and GaAlAs oxide films, R. L. Kauffman, L. C. Feldman and R. P. H. Chang . . . 149 (1978) 619
Kinetic aspects of solid-phase epitaxial growth of amorphous Si, Z. L. Liau, S. S. Lau, M.-A. Nicolet, J. W. Mayer, R. J. Blattner, P. Williams and C. A. Evans, Jr. . . . 149 (1978) 623
Marker studies of silicide formation, silicon self-diffusion and silicon epitaxy using radioactive silicon and Rutherford backscattering, R. Pretorius, C. L. Ramiller and M.-A. Nicolet . . . 149 (1978) 629
Profiles of ion-implanted Be in GaAs by means of (p, α) nuclear reaction and SIMS methods, G. K. Hubler, J. Comas and L. Plew . . . 149 (1978) 635
On the annealing behaviour of dysprosium ion implanted nickel: a combined study using Rutherford backscattering, transmission electron microscopy, and total current spectroscopy, L. T. Chadderton, E. Johnson and S. A. Komolov . . . 149 (1978) 639
Interface studies of metal-semiconductor contacts by means of SIMS, nuclear reaction and RBS, J. P. Ponpon, J. J. Grob, A. Grob, R. Stuck and P. Siffert . . . 149 (1978) 647
Analysis of boron predeposited silicon wafers by combined ion beam techniques and X-ray microanalysis, A. Armigiato, G. G. Bentini, G. Ruffini, G. Battaglin, G. Della Mea and A. V. Drigo . . . 149 (1978) 653
Analysis of anodically oxidized InP by MeV $^4He^+$ channeling effect measurements and Auger electron spectrometry, R. J. Wagner, S. S. Lau, R. P. Küllen, D. L. Lile and N. K. Wagner . . . 149 (1978) 659

Part X. Apparatus and target standards

A shutter-controlled microbeam combined with scanning system for two-dimensional backscattering images, P. Bayerl and P. Eichinger . . . 149 (1978) 663

The Heidelberg proton microprobe, F. Bosch, A. El Goresy, B. Martin, B. Povh, R. Nobiling, D. Schwalm and K. Traxel **149** (1978) 665
A miniature electrostatic lens for forming MeV millibeams, W. M. Augustyniak, D. Betteridge and W. L. Brown . **149** (1978) 669
Analysis of the lateral distribution of trace elements in biological and other materials by proton-induced X-ray fluorescence using a microbeam scanner, H. R. Wilde, M. Roth, C. D. Uhlhorn and B. Gonsior **149** (1978) 675
Ion and electron beam interaction on surfaces – a detection mechanism for obtaining visual ion beam images, J. Fine and R. Gorden, Jr. **149** (1978) 679
The gas proportional scintillation counter: evaluation of performances with interest for analysis by ion beam techniques, C. A. N. Conde **149** (1978) 685
An apparatus for channeling experiments a Torr pressures, I. Golecki and C. Jaccard **149** (1978) 689
Stopping power of 0.3–2.6 MeV ^{4}He ions in Fe and Ni, J. E. E. Baglin and W. K. Chu **149** (1978) 695
A UHV chamber for metal–semiconductor and metal–metal thin film studies, C. A. Crider, J. M. Poate, J. E. Rowe and G. H. Wheatley **149** (1978) 701
Precision absolute thin film standard reference targets for nuclear reaction microanalysis of oxygen isotopes. Part I: ^{16}O standards, G. Amsel, J. P. Nadai, C. Ortega, S. Rigo and J. Siejka **149** (1978) 705
Precision absolute thin film standard reference targets for nuclear reaction microanalysis of oxygen isotopes. Part II: ^{18}O and ^{17}O standards, G. Amsel, J. P. Nadai, C. Ortega and J. Siejka **149** (1978) 713
Precision absolute thin film standard reference targets for Rutherford backscattering microanalysis, S. Rigo, C. Cohen, A. L'Hoir and E. Backelandt **149** (1978) 721
Standards for backscattering analysis, I. V. Mitchell and H. L. Eschbach **149** (1978) 727
Possible applications of a high brightness gallium source to ion microprobes, G. R. Ringo and V. E. Krohn **149** (1978) 735
Miniature ion sources for analytical instruments, R. Clampitt and D. K. Jefferies **149** (1978) 739
Change in stoichiometry of thin films of palladium chloride during ion beam analysis, J. L. Whitton, G. Sørensen and J. S. Williams **149** (1978) 743
A hybrid pulse pile-up rejection system as applied to Rutherford backscattering, R. A. Boie and K. R. Wildnauer . . **149** (1978) 749

What do physicists expect from higher energies?, L. Van Hove **150** (1978) 113
A method to separate the masses of fission fragments with high kinetic energy, C. Guet, M. Asghar, P. Perrin and C. Signarbieux **150** (1978) 189
An extremely low background beta–gamma-gamma coincidence spectrometer with GM–Ge(Li)–NaI(Tl) counter combination, K. Nogami, K. Yamakoshi and K. Ninagawa **150** (1978) 195
The average stopping power method for accurate charged particle activation analysis, K. Ishii, M. Valladon and J-L. Debrun **150** (1978) 213
Small-angle multiple scattering of ions in the screened-Coulomb region. III. Combined angular and lateral spread, P. Sigmund, J. Heinemeier, F. Besenbacher, P. Hvelplund and H. Knudsen **150** (1978) 221
An experiment to synthesize and identify volatile superheavy elements, D. C. Aumann, H. Faleschini, L. Friedmann and D. Weismann **150** (1978) 233
Measurement of stopping powers using ion-induced X-ray emission, R. E. Marshall, A. R. El Fiqi and J. K. Kliwer **150** (1978) 241
A system for production and transport of ^{11}C isotopes *(Letter to the Editor)*, I. Loose-Wagenbach and G. Clausnitzer **150** (1978) 345
New method for efficiency calibration of Ge(Li) detectors *(Letter to the Editor)*, V. Hnatowicz and M. Fišer **150** (1978) 349
Versatile method for measuring reaction thresholds and short half-lives, G. Azuelos, J. P. Martin, G. R. Rao and P. Taras **150** (1978) 427
Spectrometric systems with a plane radioactive source, A. A. Kolchin, V. V. Lebedev and G. P. Skrebtsov **150** (1978) 441
Analyses of monochromatic gamma-ray and annihilation radiation spectra obtained with Ge(Li) detectors, K. Shizuma **150** (1978) 447
La méthode des deux oscillateurs pour la mesure du temps mort dans l'instrumentation nucléaire, J.-J. Gostely et E. Carnal **150** (1978) 459
The analysis of thick-target thick-catcher nuclear recoil experiments, L. Winsberg **150** (1978) 465
An unfolding procedure for slowly varying pulse height spectra produced by β particles in Si(Li) detectors, T. Dakubu and W. B. Gilboy **150** (1978) 479
Multi-detector arrangements for on-line measurements of γ-ray and neutron multiplicities, A. Kerek, J. Kihlgren, Th. Lindblad, C. Pomar, J. Sztarkier, W. Walus, Ö. Skeppstedt, J. Bialkowski, J. Kownacki, Z. Sujkowski and A. Zgliński **150** (1978) 483
A ^{6}Li semiconductor sandwich neutron spectrometer with background discrimination by identification of reaction products, T. Pinelli, G. Berther, G. Bracco, F. Fossati and P. Torre **150** (1978) 497
Formation of a response matrix to provide benchmark data for 6 MeV gamma photon penetrations using a NaI spectrometer, G. B. Bishop and A. M. Marafie **150** (1978) 505
Ejection behavior of alpha-recoil atoms from the electrodeposited sources, T. Hashimoto, K. Kido , H. Sugiyama, T. Sotobayashi and S. Hisamatsu **150** (1978) 509

Numerical and Data Analysis

Depth dose distribution of 9 MeV photons in a single phosphate glass compared to phantom results, B. BURGKHARDT, E. PIESCH and A. SCHMITT **141** (1977) 141
Neutron spectra of ^{242}Cm–Be and ^{244}Cm–Be neutron sources, A. KUMAR and P. S. NAGARAJAN **141** (1977) 145
Statistique de comptage: temps mort variable non cumulatif, J. LIBERT **141** (1977) 147
An approach to neutron–neutron quasifree scattering using a cyclotron, I. P. DRYAPACHENKI, V. I. GRANTSEV, V. A. KORNILOV, O. F. NEMETS, V. M. PUGHACH, B. A. RUDENKO, B. G. STRUZHKO and O. M. BILANIUK **141** (1977) 153
Absolute excitation energy measurements using an electrostatic analyzer, B. WESSELS, M. PARROTT, D. ERCEGOVIC, D. JUSTICE and W. MILLER **141** (1977) 157
Beam aberrations in a displaced quadrupole triplet charge selector, G. GOLDRING. Z. SEGALOV and E. SKURNIK . . . **141** (1977) 307
Influence of incident light wavelength on time jitter of fast photomultipliers, M. MOSZYŃSKI and J. VACHER **141** (1977) 319
Absolute measurement of the ^{56}Fe(n,p)^{56}Mn cross section at 14.8 MeV using an on-line monitoring system for the time variation of neutron flux, K. KUDO **141** (1977) 325
^{226}Ra as calibration standard for Ge(Li) spectrometers, V. ZOBEL, J. EBERTH, U. EBERTH and E. EUBE **141** (1977) 329
Gamma-ray absorption coefficient for non-homogeneous materials. K. UMIASTOWSKI, M. BUNIAK, J. GYURCSAK and P. MAŁOSZEWSKI **141** (1977) 347
Neutron scattering simulation in a time-of-flight spectrometer using a Monte Carlo method, D. APPENDINO and A. GIORDANA **141** (1977) 565
nterface magnetic tape station to CAMAC for on-line data acquisition and reduction system, J. BIAŁKOWSKI and B. JANSSON **141** (1977) 587
Inner shell ionization research in the Institute of Nuclear Research in Debrecen, Hungary, Á. KÖVÉR **142** (1977) 5
Ionization cross sections for L-subshell X-rays in Pt, Au and Hg using proton bombardment, J. R. CHEN **142** (1977) 9
PIXE work at the University of Manitoba, S. F. J. WILK, J. S. C. MCKEE and C. P. RANDELL **142** (1977) 33
The influence of matrix effects on absolute analysis using PIXE, P. M. A. VAN DER KAM, R. D. VIS and H. VERHEUL **142** (1977) 55
Enhancement in PIXE analysis, M. S. AHLBERG **142** (1977) 61
Proton-induced X-ray emission analysis of thick and thin targets, R. D. WILLIS, R. L. WALTER, R. W. SHAW JR. and W. F. GUTKNECHT **142** (1977) 67
High energy heavy-ion induced X-ray emission analysis, J. B. CROSS, R. ZEISLER and E. A. SCHWEIKERT **142** (1977) 111
Computer analysis of proton induced X-ray emission spectra, R. D. WILLIS and R. L. WALTER **142** (1977) 231
A computer analysis of X-ray fluorescence spectra, P. VAN ESPEN, H. NULLENS and F. ADAMS **142** (1977) 243
REX – A computer programme for PIXE analysis, H. C. KAUFMANN, K. R. AKSELSSON and W. J. COURTNEY **142** (1977) 251
Statistical techniques for handling PIXE data, T. A. CAHILL, R. A. ELDRED, R. G. FLOCCHINI and J. BARONE **142** (1977) 259
Wavelength-dispersion analysis of PIXE spectra, R. D. WILLIS, R. L. WALTER, B. L. DOYLE and S. M. SHAFROTH . . . **142** (1977) 317
A method for measuring the rms noise of a composite amplifier–discriminator system, K. P. LAMBERT and J. W. LEAKE **142** (1977) 489
Some spatial factors associated with positron annihilation, G. AZUELOS, M. BELLEAU, J. E. CRAWFORD and J. E. KITCHING **142** (1977) 491
Accuracy of absorption methods in the identification of beta emitters, T. BALTAKMENS **142** (1977) 535
The response of a surface barrier detector to mass and energy separated fission fragments, E. C. FINCH, M. ASGHAR, M. FORTE, G. SIEGERT, J. GREIF, R. DECKER and the 'Lohengrin' Collaboration **142** (1977) 539
The area of a single line Mössbauer absorption spectrum, P. J. BLAMEY **142** (1977) 553
A buffer store for use with a multichannel analyser, A. M. MACLEOD **142** (1977) 559
An analysis of the power law type algorithm for identification of heavy ions by using the modified Zaidins empirical range–energy relationship, S. OHKAWA and K. HUSIMI **142** (1977) 563
Identification of atomic numbers up to $Z = 60$ by means of ΔE -E telescopes and a computerized method, P. GLÄSSEL, R. C. JARED and L. G. MORETTO **142** (1977) 569
The application of a non-iterative method for fitting a Gaussian to peaks from Ge(Li) and Si detectors *(Letter to the Editor)*, U. ABBONDANNO, A. BOITI and F. DEMANINS **142** (1977) 605
An accurate determination of the plutonium K-absorption edge energy using gamma-ray attenuation *(Letter to the Editor)*, T. R. CANADA, R. C. BEARSE and J. W. TAPE **142** (1977) 609
Determination of ion source pressure from discharge characteristics, K. WITTMAACK and W. WACH **143** (1977) 7
An algorithm for fitting Lorentzian-broadened, K-series X-ray peaks of the heavy elements, R. GUNNINK **143** (1977) 145
A universal method of spectrum analysis, V. B. ZLOKAZOV **143** (1977) 151
Equilibrium charge-state fractions for 3.3-39 keV deuterium atoms and ions in magnesium vapor, K. H. BERKNER, D. LEUNG, R. V. PYLE, A. S. SCHLACHTER and J. W. STEARNS **143** (1977) 157
Phenomenological restrictions for spin-alignment attenuation factors in heavy-ion induced fusion-evaporation reactions, G. A. P. ENGELBERTINK, L. P. EKSTRÖM, D. E. C. SCHERPENZEEL and H. H. EGGENHUISEN **143** (1977) 161
Anomalies dans la collection des charges au sein d'un détecteur Ge(Li) influence sur la résolution en temps, R. BLAES et J. A. MIEHE **143** (1977) 171
Recoil energy and effective mass determinations from neutron capture line shapes for narrow resonances, M. OHKUBO. **143** (1977) 173
Dead-time corrections on long-interval measurements of short-lived activities, M. IRFAN and S. A. HUSAIN **143** (1977) 177
Effective solid angle of scintillation counter for fast neutrons, H. BRYSK **143** (1977) 327

Thick target neutron yields and spectral distributions from the $^{7}Li(^{d}_{p}, n)$ and $^{9}Be(^{d}_{p}, n)$ reactions, M. A. Lone, C. B. Bigham, J. S. Fraser, H. R. Schneider, T. K. Alexander, A. J. Ferguson and A. B. McDonald **143** (1977) 331
A semi-empirical expression for specific luminescence in plastic scintillators, N. N. Ajitanand **143** (1977) 345
Dose and shielding parameters of electron photon stray radiation from a high-energy electron beam, H. Dinter and K. Tesch **143** (1977) 349
Statistique de comptage: Temps mort variable cumulatif, J. Libert **143** (1977) 357
Track reconstruction method in a small volume self-shunted streamer chamber analysis of the errors for low energy electrons, M. J. Parizet, J. Augerat, M. Avan, M. Ballet and M. Vialle **143** (1977) 363
Precision measurement of the energy of the second excited state in ^{6}Li, J. C. Kim, P. Depommier, W. Del Bianco and S. Kundu **143** (1977) 371
The smoothing and fast Fourier transformation of experimental X-ray and neutron diffraction data from amorphous materials, M. Dixon, A. C. Wright and P. Hutchinson **143** (1977) 379
On the evaluation of the Debye–Waller factor *(Letter to the Editor)*, D. C. Gupta and N. D. Sharma **143** 1977) 407
Maximum likelihood analysis of ionization data from SAMM, R. Raja and D. Bogert **143** (1977) 543
On the analytic fitting of full energy peaks from Ge(Li) and Si(Li) photon detectors, H. H. Jorch and J. L. Campbell . **143** (1977) 551
Valeurs exactes des coefficients d'aberration d'une lentille quadripolaire representée par le modèle rectangulaire, A. Durand et P. Tanguy **143** (1977) 561
A procedure to obtain reliable pair distribution functions of non-crystalline materials from diffraction data, F. Yssing Hansen and K. Carneiro **143** (1977) 569
The Monte Carlo calculation of the average solid angle subtended by a right circular cylinder from distributed sources, L. Wielopolski **143** (1977) 577
Effect of source preparation technique on the differential angular correlation of the 133-482 keV cascade in ^{181}Ta, B. K. Sinha and R. Bhattacharyya **143** (1977) 583
Proton loss by nuclear inelastic interactions in CsI, NaI, NE102, NE213 and stilbene, A. M. Sourkes, M. S. De Jong, C. A. Goulding, W. T. H. Van Oers, E. A. Ginkel, R. F. Carlson, A. J. Cox and D. J. Margaziotis **143** (1977) 589
Equilibrium charge state distributions of ^{14}N and ^{20}Ne ions emerging from solids, Y. Kido, M. Asari, A. Nakata and F. Fukuzawa **143** (1977) 601
Etching behaviour of Makrofol KG in KOH solution, G. Illari, M. Lattuada, E. Modica, D. Vinciguerra and S. Barbarino **143** (1977) 605
Self-induced α-spectrum of $ThBr_4$ single crystal *(Letter to the Editor)*, R. Carlier, J. C. Krupa, M. Hussonnois, M. Genet and R. Guillaumont **143** (1977) 613
Automatic peak-locating techniques for γ-ray spectra, I. De Lotto and A. Ghirardi **143** (1977) 617
The parameters of Mössbauer spectra taken by means of resonance detectors, K. P. Mitrofanov, V. P. Gor'kov and M. V. Plotnikova **144** (1977) 263
Analysis of photonuclear yield functions, B. Grosswendt, W. Collin and U. Schneider **144** (1977) 271
General method for the calculation of particle trajectories in any sector field in a third order approximation, Y. Fujita, H. Matsuda and T. Matsuo **144** (1977) 279
On-line acquisition of *N*-fold coincidences at a pulsed accelerator, G. Junghans, K. Bangert, U. E. P. Berg, R. Stock and K. Wienhard **144** (1977) 293
Correction for the neutron and gamma attenuation effects in 14 MeV neutron activation analysis, S. Taczanowski . **144** (1977) 299
Electronic energy loss and charge-state fluctuations of swift ions, K. B. Winterbon **144** (1977) 311
Effect of the 2.37 MeV oxygen antiresonance in a fast neutron filter, S.-Ö. Lindahl and J. K. Shultis **144** (1977) 317
Measurements of absolute resonance strengths in (p, γ) reactions on rare or gaseous nuclei, M. Riihonen and J. Keinonen **144** (1977) 323
An accurate measurement of the $^{27}Al(p, n)^{27}Si$ threshold energy, H. Naylor and R. E. White . . . **144** (1977) 331
Fermi momentum and contribution of core electrons to annihilation for In and Sn (*Letter to the Editor*), S. Charalambous and M. Chardalas **144** (1977) 361
Width of a Lorentzian convoluted with a gaussian (*Letter to the Editor*), P. L. Lee **144** (1977) 363
The single backscattering of gamma rays, J. Šeda, J. Strachota, T. Čechák and J. Klusoň **144** (1977) 557
One-pass sorting method for multi-parameter experiments using a small computer, G. Barbier **144** (1977) 561
Methode de mesure absolue de la section efficace totale de creation de paires pres du seuil, A. Coquette **144** (1977) 571
Calculation of the gamma ray contribution to proton recoil counter data in a mixed neutron gamma ray field, P. K. Ray and E. S. Kenney **144** (1977) 579
High temperature diffusion of uranium in refactory metals determined by thermal neutron fission of ^{235}U, C.-S. Su . **145** (1977) 361
The role of the waveform in pulse pile-up, D. W. Datlowe **145** (1977) 365
Figure-of-merit (FOM), an improved criterion over the normalized chi-squared test for assessing goodness-of-fit of gamma-ray spectral peaks, H. G. Balian and N. W. Eddy **145** (1977) 395
Energy loss and straggling of low energy alphas in helium *(Letter to the Editor)*, J. M. Cameron, R. H. McCamis, G. A. Miller, G. A. Moss, G. Roy and A. W. Stetz **145** (1977) 405
Absorption of high energy electrons in liquid medium, H. Kato, R. Ono and R. Kato **145** (1977) 525
Thermoionization efficiency in the ion source cavity, V. P. Afanas'ev, V. A. Obukhov and V. I. Raiko **145** (1977) 533

Added precision in ^{57}Fe Mössbauer spectroscopy, W. R. Dunham, C. T. Wu, R. M. Polichar, R. H. Sands and L. J. Harding . . . 145 (1977) 537
Fluctuations and the most probable values of relativistic charged particle energy loss in thin gas layers, V. C. Ermilova, L. P. Kotenko and G. I. Merzon . . . 145 (1977) 555
Calculation of the efficiency and losses of electronics for drift chambers, S. G. Basiladze and W. Tlaczala . . . 145 (1977) 565
The natural line shape of the giant dipole resonance, E. F. Gordon and R. Pitthan . . . 145 (1977) 569
A method for the accurate description of the full energy peaks in non-linear least-squares analysis of X-ray spectra, P. Van Espen, H. Nullens and F. Adams . . . 145 (1977) 579
Silicon detector ΔE, E particle identification: A theoretically based analysis algorithm and remarks on the fundamental limits to the resolution of particle type by ΔE, E measurements, A. G. Seamster, R. E. L. Green and R. G. korteling . . . 145 (1977) 583
Noise measurements for voltage sensitive amplifier, C. L. Ambrose, K. D. Evans, E. Mathieson and S. B. Whitehouse . . . 145 (1977) 601
Range and range straggling of heavy ions in solids, K. Güttner, S. Hofmann, D. Marx, G. Münzenberg and F. Nickel . . . 146 (1977) 413
Trace diffusion of different nuclear reaction products in polycrystalline tantalum, G. J. Beyer, A. F. Novgorodov and W. D. Fromm . . . 146 (1977) 419
Statistique de comptage a temps mort variable: expressions générales des distributions, J. Libert . . . 146 (1977) 431
Interpolation formulas for quantities related to radiative energy-loss of electrons, T. Tabata and R. Ito . . . 146 (1977) 435
Distributions of energetic proton ranges in silicon as determined by the Monte Carlo method, J. Tatarkiewicz . . . 146 (1977) 447
Comparison of yield versu sdepth for particle induced and photon induced X-ray emission analysis *(Letter to the Editor)*, M. S. Ahlberg . . . 146 (1977) 465
Discriminiation for alpha-gamma separation with trans-stilbene . . . 146 (1977) 531
Isomeric cross section ratios in the ^{197}Au(n,2n)^{196}Au reaction, N. Büget . . . 146 (1977) 535
Neutron dosimetric measurements using mica and pyrex, M. A. Gomaa . . . 146 (1977) 541
Multiple scattering effects in fast neutron polarization experiments using high-pressure helium-xenon gas scintillators as analyzers, W. Tornow and G. Mertens . . . 146 (1977) 545
A relationship between the point and extended volume source geometries in the calculation of the efficiency values for NaI detectors, R. Rieppo . . . 146 (1977) 557
Charge distributions of sulfur ions at energies between 70 and 140 MeV, U. Scharfer, C. Henrichs, J. D. Fox, P. von Brentano, L. Degener, J. C. Sens and A. Pape . . . 146 (1977) 573
Mass-spectrometric determination of fission gas permeabilities of HTR fuel particle coatings *(Letter to the Editor)*, A. Strigl . . . 146 (1977) 607
Elemental analysis of water using proton-induced X-ray emission *(Letter to the Editor)*, Y.-C. L. Lien, R. R. Zombola and R. C. Bearse . . . 146 (1977) 609
Reconstruction of missing data in principal component analysis *(Letter to the Editor)*, P. E. Condon . . . 146 (1977) 611
Precise energies of gamma rays from the ^{230}Th and ^{228}Th decay *(Letter to the Editor)*, W. Kurcewicz, E. Ruchowska, N. Kaffnell and N. Trautmann . . . 146 (1977) 613
Activation and angular distribution measurements of ^{7}Li(p,n)^{7}Be (0.0 + 0.429 MeV) for E_p = 25–45 MeV: A technique for absolute neutron yield determination, S. D. Schery, L. E. Young, R. R. Doering, S. M. Austin and R. K. Bhowmik . . . 147 (1977) 399
Precise relative γ-ray intensities for calibration of Ge semiconductor detectors, R. J. Gehrke, R. G. Helmer and R. C. Greenwood . . . 147 (1977) 405
A precise determination of the ^{12}C(p,γ)^{13}N reaction Q-value, J. C. P. Heggie and Z. E. Switkowski . . . 147 (1977) 425
Spurious thermoluminescence of calcium sulfate due to ambient atmosphere during irradiation, Pin-Chieh Hsu, Chia-Liang Tseng and Pao-Shan Weng . . . 147 (1977) 529
Curious random counting statistics: theory, an actual flight experiment and possible applications for a suggested electrical circuit, P. Evenson, D. Herrup and I. Lerche . . . 147 (1977) 535
The response of screen-film to end-of-range proton exposures, J. Curry and V. W. Steward . . . 147 (1977) 541
Velocity measurement of fast ions by doppler shift of light emitted from ions passed through thin foil, A. Kyoshima, K. Saitoh, K. Kimura, H. Kudo and M. Mannami . . . 147 (1977) 547
Gamma-ray pulse-height response of an NE-213 scintillation detector, D. T. Ingersoll and B. W. Wehring . . . 147 (1977) 551
Integral experiment of photonuclear cross sections of C, Mn, Fe, In and Au in the giant resonance region, H. Hirayama and T. Nakamura . . . 147 (1977) 563
Some notes on the calculation of the magnetic field produced by a toroidal thick coil, B. Arcipiani and E. Pedretti 147 (1977) 571
New method for precise background determination in neutron transmission measurements with a linac, A. Asami and Y. Nakajima . . . 147 (1977) 577
Determination of the drift parameters of lithium in germanium with cylindrical and spherical forms of the electric field, D. P. Lefterov and E. Y. Zartova . . . 147 (1977) 583
Mean excitation energies of Si, Ni, Ge, Y, Ag and Au based on alpha particle stopping power measurements, L. E. Porter . . . 148 (1978) 119
Thin carbon foil breakage times under ion beam bombardment, A. E. Livingston, H. G. Berry and G. E. Thomas 148 (1978) 125

A complete experiment for p–p scattering at medium energies, D. Besset, B. Favier, L. G. Greeniaus, R. Hess, C. Lechanoine, D. Rapin, D. W. Werren and Ch. Weddigen **148** (1978) 129
Variations d'emittances d'un faisceau lors de son guidage par un système de lentilles quadripolaires, P. Tanguy et A. Durand **148** (1978) 149
Thermal neutron reaction cross section measurements for fourteen nuclides with a liquid scintillation spectrometer, M. Takiue and H. Ishikawa **148** (1978) 157
An interpolation scheme for cylindrically symmetric magnetic fields, D. E. Lobb **148** (1978) 163
An empirical range–beta approximation, A. M. Bakich and L. S. Peak **148** (1978) 167
A computer program for α spectrum analysis, H. Baba **148** (1978) 173
Considerations about reactions occurring in pile irradiation of LiF crystals *(Letter to the Editor)*, C. A. Pimentel and L. Q. Amaral **148** (1978) 199
Effect of the light output efficiency of charged particles on an unfolded neutron spectrum by an NE213 organic scintillator, N. Sasamoto and S. Tanaka **148** (1978) 395
Multiple scattering of fast charged particles in silicon, J. Vincour and P. Bém **148** (1978) 399
Automatical analysis of gamma-ray and charged-particle complex spectra from solid state detectors, U. Abbondanno, A. Boiti, F. Demanins and M. R. Malisan **148** (1978) 577
Stationary and nonstationary flow of ultracold neutrons along a guide tube in the frame of the diffusion approximation, V. K. Ignatovich and G. I. Terekhov **148** (1978) 585
CRETA 74: an improvement of PAL 11A assembler for an implementation of IML-syntax for use with CAMAC, P. Monaci and M. G. Putignani **148** (1978) 601
Parameter analysis of an electrostatic particle guide using radioactive recoil ions, A. Kenigsberg, J. Leon and N. H. Shafrir **148** (1978) 605
Non-radiation induced thermoluminescence in pre-irradiated LiF(TLD-100), Ch. Petridou, C. Christodoulides and S. Charalambous **150** (1978) 247
Frequency filtering of proton-recoil data, W. Sloan and G. L. Woodruff **150** (1978) 253
Measurements of absorption probabilities for ultra-cold neutrons incident on strong absorbers, J. C. Bates **150** (1978) 261
A new method to analyse composite exponential decay curves, H. J. Stöckmann **150** (1978) 273
Z dependence of elastic scattering of gamma rays rechecked, S. C. Roy **150** (1978) 283
Automatic data acquisition and on-line analysis of trace element concentration in serum samples, R. Lecomte, P. Paradis, S. Monaro, M. Barrette, G. Lamoureux and H. A. Ménard **150** (1978) 289
Influence of straggling on the analysis of ion implantation profiles using backscattering or nuclear reactions, E. Friedland **150** (1978) 301
A spectral chart of the radiation from a circular electron accelerator *(Letter to the Editor)*, Y. Yoneda and N. Hramatsu **150** (1978) 353
Small angle neutron scattering with azimuthal symmetry *(Letter to the Editor)*, D. F. R. Mildner **150** (1978) 357
Relative intensities of gamma rays from ^{166m}Ho *(Letter to the Editor)*, T. E. Sampson **150** (1978) 361
Recombination luminescence in the scintillation of high pressure argon gas induced by alpha particles, S. Konno and T. Takahashi **150** (1978) 517
Sensitivity in light element analysis by 2 MeV and 150 keV proton and photon induced X-rays, Y. Moriya, Y. Ato and S. Miyagawa **150** (1978) 523
Absolute charge state yields of 20 MeV ^{127}I ions emerging from a gas stripper, C. D. Moak, L. B. Bridwell, H. A. Scott, G. D. Alton, C. M. Jones, P. D. Miller, R. O. Sayer, Q. C. Kessel and A. Antar **150** (1978) 529
Limits on differential hysteresis in an Enge split-pole spectrograph and on the accuracy of proton beam energy calibrations, P. H. Barker, H. Naylor and R. E. White **150** (1978) 537
Das Szintillationsabklingen deuterierter Flüssigkeitsszintillatoren, R. Langkau **150** (1978) 541
Das Szintillationsabklingen von Flüssigkeitsszintillatoren in Abhängigkeit von der Einschussenergie, R. Langkau . **150** (1978) 545
Variation of scintillation decay inliquid argon excited by electrons and alpha particles, S. Kubota, M. Hishida and A. Nohara **150** (1978) 561
Fast AD conversion of pulse sequences, S. Centro, M. de Giorgi and D. Pascoli **150** (1978) 565
Low cost time to digital converter in real time with ±1 ns resolution, G. Lenzi, P. Podini, R. Reverberi and K. Pernestål **150** (1978) 575
Relative intensities of gamma-rays from ^{56}Co standard source *(Letter to the Editor)*, M. Hautala, A. Anttila and J. Keinonen **150** (1978) 599

Nuclear Electronics

Kompakte Schachbrett-Detektor-Elektronik für Blocking-Experiments, H. U. Schmidt **141** (1977) 165
A digital processor for position sensitive detectors, B. E. Fischer **141** (1977) 173
Clearing electrode control system, P. Strubin **141** (1977) 337
Delay line readout of the anode wires in a multiwire proportional chamber, D. Bryman, J. Cresswell and R. Skegg . **141** (1977) 573
A microprocessor-controlled digital spectrum stabilizer, M. Brendle **141** (1977) 577

An autonomous CAMAC crate controller for sequential operations, F. Celani . . . **141** (1977) 593
CAMAC interface module for pace ADC system, C. G. Dalton, R. E. Mischke and D. T. Scott . . . **141** (1977) 595
Trace element analysis by means of particle induced X-ray emission with triggered beam pulsing, W. Koenig, F. W. Richter, U. Steiner, R. Stock, R. Thielmann and U. Wätjen . . . **142** (1977) 225
A high-voltage RF deflector for reduction of cyclotron beam repetition rates, H. H. Wieman and L. A. Erb . . . **142** (1977) 573
An LED flashing system for testing scintillation counter arrays, A. M. MacLeod, K. M. Smith and C. Raine . . . **143** (1977) 181
Digital acquisition system for measurement of time varying X-radiation fields, C. J. Daniels and T. R. Lee . . . **143** (1977) 187
A simple method for improving the transducer signal-to-noise ratio in a magnetostrictive wire readout system *(Letter to the Editor)*, D. Makawiechi . . . **144** (1977) 367
A versatile CAMAC based linear PHA system, A. de Clercq, E. Jacobs, D. de Frenne, H. Thierens, P. D'Hondt and A. J. Deruytter . . . **144** (1977) 593
A CAMAC/NIM system for data acquisition and monitoring of drift chambers *(Letter to the Editor)* L. Holcomb and A. L. Sessoms . . . **144** (1977) 597
A low cost synchronous digital triangle generator and servo loop preamplifier for Mössbauer systems using 2^n channels of memory, A. Migliori and R. D. Taylor . . . **145** (1977) 397
A high resolution low cost charge sensitive amplifier, S. Brandt, C. Grupen, M. Roschangar, B. Schöfer and G. Knies . . . **145** (1977) 593
Localisation du passage d'une particule chargée dans un compteur proportionnel multifils a l'aide de lignes a retard électromagnétique, R. Bruere-Dawson and A. Patiou . . . **145** (1977) 607
Simple, precise, single channel pulse height analyzer with high dynamic range *(Letter to the Editor)*, R. Bayer . . . **146** (1977) 469
A seven channel gated charge to time converter, R. J. Stubbs and W. D. Waddoup . . . **146** (1977) 561
An eight channel fast scaler, W. D. Waddoup and R. J. Stubbs . . . **146** (1977) 569
A dead time correction system using standard modules, G. C. Meggitt . . . **146** (1977) 583
A coding and reading data unit from hodoscopic recording systems in the CAMAC standard, S. G. Basiladze, V. A. Smirnov and V. K. Yudin . . . **146** (1977) 587
CWRU multiwire proportional counter readout system, P. R. Bevington and R. A. Leskovec . . . **147** (1977) 431
A new fast and programmable trigger logic, A. Fucci, S. R. Amendolia, E. Bertolucci, U. Bottigli, C. Bradaschia, L. Foà, A. Giazotto, M. Giorgi, M. Givoletti, P. Lucardesi, A. Menzione, D. Passuello, M. Quaglia, L. Ristori, L. Rolandi, P. Salvadori, A. Scribano, R. Stanga, A. Stefanini and M. L. Vincelli . . . **147** (1977) 587
An automatic tracking nuclear magnetic resonance gaussmeter, Juh Tzeng Lue . . . **147** (1977) 595
The CYCL-OP, a new low cost approach to analog signal fast acquisition for large particle detectors, S. Centro, M. de Giorgi and L. Ventura . . . **147** (1977) 599
An economical way to run PDP11 peripherals on a PDP15 computer, J. R. Anderson and R. Herzog . . . **147** (1977) 611
A CAMAC automated nuclear chemistry laboratory, D. G. Perry . . . **147** (1977) 615
Microprocessor controlled scanning and measuring of bubble chamber film, J. Erwin, G. L. Harris, K. Hayes, R. D. Kass, W. Ko, D. E. Pellett and D. Rosener . . . **148** (1978) 403
Signal and noise response in various configurations of charge sensitive preamplifiers, G. Hahn . . . **148** (1978) 591
Contact degradation of GaAs transferred electron devices, C. J. Palmström, D. V. Morgan and M. J Howes . . . **150** (1978) 305
A dual integrated gate generator *(Letter to the Editor)*, G. Goggi, R. Nardò and B. Rossini . . . **150** (1978) 603
Simple digital based triangle wave generator for Mössbauer spectroscopy *(Letter to the Editor)*, M. F. Taragin . . . **150** (1978) 607

Nuclear Methods Applied to Other Fields

A study of the feasibility of fusion power with negligible neutron productions, J. R. Treglio . . . **141** (1977) 353
High-dose characteristics of CaF_2 and $CaSO_4$ thermoluminescent dosimeters, B. Burgkhardt, D. Singh and E. Piesch . . . **141** (1977) 363
Automated analyses of environmental samples, T. A. Cahill . . . **142** (1977) 1
A PIXE system for air pollution studies in South America, C. Q. Orsini and L. C. Boueres . . . **142** (1977) 27
Sulfur and trace metal relationships in nonurban and marine aerosols studied using proton induced X-ray emission, J. W. Winchester . . . **142** (1977) 85
Variation of elemental composition with particle size in the St. Louis aerosol, C. Q. Orsini, H. C. Kaufmann, K. R. Akselsson, J. W. Winchester and J. W. Nelson . . . **142** (1977) 91
Monitoring aerosol elemental composition in particle size fractions for predicting human respiratory uptake, G. G. Desaedeleer, J. W. Winchester and K. R. Akselsson . . . **142** (1977) 97
PIXE analysis of urban aerosols on heavy-loaded membrane filters, K. Kemp and F. Palmgren Jensen . . . **142** (1977) 101
Elemental concentrations and particle size distributions in an atmospheric background aerosol, H. O. Lannefors, T. B. Johansson, L. Granat and B. Rudell . . . **142** (1977) 105
Proton induced X-ray emission analysis of biological samples: some approaches and applications, N. F. Mangelson, M. W. Hill, K. K. Nielson and J. F. Ryder . . . **142** (1977) 133
Elemental variations in whole blood following gamma radiation injury of mice, R. C. Bearse, C. E. Burns, D. A. Close and J. J. Malanify . . . **142** (1977) 143

Proton-induced X-ray emission: applications in medicine, V. Valkovic **142** (1977) 151
Elemental trace analysis in serum using proton-induced X-ray fluorescence, R. D. Vis, P. M. A. van der Kam and H. Verheul **142** (1977) 159
Application of PIXE to trace element analysis in biological tissues, I. Hasselmann, W. Koenig, F. W. Richter, U. Steiner, U. Wätjen, J. C. Bode and W. Ohta **142** (1977) 163
Human diseases and trace elements: investigation by proton-induced X-ray emission, H. A. van Rinsvelt, R. D. Lear and W. R. Adams **142** (1977) 171
The application of proton-induced X-ray emission to bioenvironmental analyses, R. L. Walter, R. D. Willis, W. F. Gutknecht and R. W. Shaw Jr. **142** (1977) 181
A study on proton-induced X-ray analysis and its application to environmental samples, T. Shiokawa, T. C. Chu, V. R. Navarrete, H. Kaji, G. Izawa, K. Ishii, S. Morita and H. Tawara **142** (1977) 199
Analysis of sulphur in plant material, P. Kump, P. Rupnik, M. Budnar and I. Kreft **142** (1977) 205
Protein quality of leguminous plants determined by proton-induced radiation analysis, P. Rupnik, P. Kump, M. Budnar and I. Kreft **142** (1977) 209
Proton induced X-ray analysis of drinking water samples, P. Sioshansi, A. S. Lodhi and H. Payrovan **142** (1977) 285
PIXE analysis in viticulture and oenology, J. L. Campbell, B. H. Orr and A. C. Noble **142** (1977) 289
Ancient pottery analysis by proton bombardment and Mössbauer spectroscopy, J. Baijot-Stroobants and F. Bodart **142** (1977) 293
Analysis of meteoritic samples using proton induced X-rays, H. W. Kugel and G. F. Herzog **142** (1977) 301
The use of PIXE in generating evidence for primordial superheavy elements, T. A. Cahill, R. G. Flocchini, J. W. Nelson, N. R. Fletcher, H. C. Kaufmann and L. R. Medsker **142** (1977) 307
Minimum size of soil sample for laboratory calibration of subsoil neutron moisture probe, A. V. Lakshmipathy and P. Gangadharan **142** (1977) 577
On the radioactivity of fossil bones, S. Charalambous and C. Papastefanou **142** (1977) 581
Damage to human blood cells caused by 200 keV triton bombardment, D. N. Slatkin and K. W. Jones **142** (1977) 589
A practical dosimeter for UV light, P. Bassi, G. Busuoli and O. Rimondi **143** (1977) 195
In situ subterranean gamma-ray spectroscopy, H. L. Nielson, N. A. Wogman and R. L. Brodzinski **143** (1977) 385
A counter system for natural C14 measurement, H. Oona and C. Y. Fan **143** (1977) 391
Pore size determination from charged particle energy loss measurement, F. P. Brady and B. H. Armitage **143** (1977) 595
Progress in albedo neutron dosimetry, E. Piesch **145** (1977) 613
Pitch angle measurements from satellites using particle telescopes with multiple view directions, P. R. Higbie and W. R. Moomey **146** (1977) 439
Quantitative (p,x) analysis of iron and minor elements in biological material *(Letter to the Editor)*, A. E. Simpson and N. A. Dyson **146** (1977) 473
An electrolytic enrichment cell and a reduction system for the measurement of low level tritium concentration in water *(Letter to the Editor)*, C. Yamaguchi **146** (1977) 615
A magnetic spectrometer for cosmic ray studies, R. L. Golden, G. D. Badhwar, J. L. Lacy and J. E. Zipse **148** (1978) 179
Absolute estimation of radon daughter concentrations in air by α-spectrometry, G. Aprilesi, A. Loria, G. Magnoni, M. Marseguerra, S. Morelli and M. R. Rivasi **148** (1978) 187
X-ray analysis of thick targets with α-particles, K. G. Bauer, Q. Fazly, T. Mayer-Kuckuk, H. Mommsen and P. Schürkes **148** (1978) 407
Coincidence electronics for the circular ring transaxial positron camera, Z. H. Cho, M. Singh, L. Eriksson and J. Chan **148** (1978) 415
High-dose characteristic of LiF and $Li_2B_4O_7$ thermoluminescent dosimeters, B. Burgkhardt, E. Piesch and D. Singh **148** (1978) 613
A muon telescope for the measurement of the spectra and zenith angle dependence of slow muons, L. S. Chuang and M. Wada **150** (1978) 313
Surface imaging with backscattered beta-rays using extended area beta-ray sources, J. Rant and G. Pregl **150** (1978) 317
Pattern recognition with spatially modulated X-rays, B. Braunecker, R. Hauck and K. Reuter **150** (1978) 321
Man-made geothermal energy source *(Letter to the Editor)*, C. J. Chen **150** (1978) 365
Criterion for determining saturation current in parallel plate ionization chambers, S. M. Mustafa and K. Mahesh **150**)1978) 549
Gamma dose measurements by optical absorption, electrical conductivity and mechanical hardness, E. M. H. Ibrahim, A. M. Sayed and R. I. Dawood **150** (1978) 555
Calculation of the Coulomb capture of mesonic particles in inhomogeneous matter *(Letter to the Editor)*, H. Daniel **150** (1978) 609

Letters to the Editor

Acceleration of beryllium and boron in a tandem accelerator, J. Heinemeier and P. Tykesson **141** (1977) 183
A superconducting quadrupole "collector" with large solid angle for high energy heavy-ion experiments, R. M. Devries and D. Elmore **141** (1977) 369
On producing negative ion beams of magnesium and calcium in a cesium sputter source, R. Middleton **141** (1977) 373

Preparation of isotopic sulfur targets, M. A. Hedemann **141** (1977) 377
Cyclotron heavy ion beam intensity enhancement by using an easily ionized support gas in the ion source, E. D. Hudson, G. A. Palmer, C. L. Haley and M. L. Mallory **141** (1977) 381
A pulse-operated polarized H^- source of Lamb-shift type, Y. Mori, A. Takagi, M. Kobayashi, Y. Wakuta, S. Fukumoto, K. Kikuchi and M. Sonoda **141** (1977) 383
Recoil deuteron polarimeter for a polarized ^{3}He beam, O. Karban, C. O. Blyth, Y.-W. Lui and S. Roman **141** (1977) 387
A bent crystal spectrometer geometry with a shadow source, W. W. Sapp, Jr. **141** (1977) 391
Field coupling and higher order aberrations of a magnetic quadrupole doublet consisting of short closely arranged lenses, M. Buckl and W. Schott **141** (1977) 599
Particle diagnosis of a fusion plasma, T. Elevant **141** (1977) 603
On a five-plane, low-mass, self-triggering multiwire proportional chamber with cathode-coupled coaxial-cable delay-line readout, H. Anderhub, J. Böcklin, H. Hofer, D. Makowiecki, B. Sapp, P.-G. Seiler and G. Wemmers **142** (1977) 595
Performance of a time-variant filter in the presence of dominant $1/f$ noise, J. Llacer and D. F. Meier **142** (1977) 597
Calculation of the efficiency of a cylindrical detector for thermal neutrons with due account taken of the influence of the wall, M. Davidovic and U. Dahlborg **142** (1977) 601
The application of a non-iterative method for fitting a Gaussian to peaks from Ge(Li) and Si detectors, U. Abbondanno, A. Boiti and F. Demanins **142** (1977) 605
An accurate determination of the plutonium K-absorption edge energy using gamma-ray attenuation, T. R. Canada, R. C. Bearse and J. W. Tape **142** (1977) 609
A method for measuring power signal background and source strength in a fission reactor, B. Bärs, L. Kåll and P. Visuri **143** (1977) 199
Comment on the resolution of NaI counter telescopes, A. Stetz **143** (1977) 405
On the evaluation of the Debye–Waller factor, D. C. Gupta and N. D. Sharma **143** (1977) 407
The evaluation of ^{57}Fe and ^{119}Sn Mössbauer spectra, W. Hofmann, H. Keller and W. Kündig **143** (1977) 609
Self-induced α-spectrum of $ThBr_4$ single crystal, R. Carlier, J. C. Krupa, M. Hussonnois, M. Genet and R. Guillaumont **143** (1977) 613
Automatic peak-locating techniques for γ-ray spectra, I. De Lotto and A. Ghirardi **143** (1977) 617
Comment on a paper by K. Halbach: A simple class of beam transport systems with optically axisymmetric transfer properties, P. W. Hawkes **144** (1977) 337
Reply to the comment by P. W. Hawkes on my paper: A simple class of beam transport systems with optically axisymmetric transfer properties, K. Halbach **144** (1977) 339
The separation between hadrons and electromagnetic particles using an ionization calorimeter, L. W. Jones . . . **144** (1977) 341
A ^{48}Ca beam for tandem accelerators, G. Korschinek and W. Kutschera **144** (1977) 343
Le comportement du multiplicateur tubulaire d'electrons entre 20 et 100 °C, C. Barat et J. Coutelier **144** (1977) 347
A simple and accurate dead time measuring system for a Si(Li) X-ray spectrometer system, Md. R. Khan and D. Crumpton **144** (1977) 351
Application of chemical preferential etching on fabrication of epitaxial silicon detectors, S. Osada, K. Husimi, Y. Fuchi, S. Ohkawa and S. Watanabe **144** (1977) 353
Operation of channel plate multipliers in strong magnetic fields, F. Falk **144** (1977) 355
A method to improve the differential linearity of successive-approximation analog-to-digital converters, M. Brendle . **144** (1977) 357
Efficiency calibration of a Si(Li) detector at photon energies below 5 keV, G. Hubricht, B. Knaf, G. Presser and J. Stähler **144** (1977) 359
Fermi momentum and contribution of core electrons to annihilation for In and Sn, S. Charalambous and M. Chardalas **144** (1977) 361
Width of a Lorentzian convoluted with a Gaussian, P. L. Lee **144** (1977) 363
A simple method for improving the transducer signal-to-noise ratio in a magnetostrictive wire readout system, D. Makowiecki **144** (1977) 367
A CAMAC/NIM system for data acquisition and monitoring of drift chambers, L. Holcomb and A. L. Sessoms . **144** (1977) 597
Improved technique for the preparation of deuterated-polyethylene targets, C. M. Bartle **144** (1977) 599
An efficient surface ionization integrated target-ion source for alkaline earth elements, M. Shmid, Y. Nir-El, G. Engler and S. Amiel **144** (1977) 601
Xenon–krypton mixtures for the gas proportional scintillation counter, M. A. F. Alves, M. Salete S. C. P. Leite, M. Alegria Feio and A. J. P. L. Policarpo **144** (1977) 605
Timing properties of parallel plate avalanche counters with light particles, A. Breskin and N. Zwang **144** (1977) 609
Application on track detectors to the measurement of sputtering yields, R. Gregg, Z. E. Switkowski and T. A. Tombrello **144** (1977) 613
An improvement to the beam buncher of the University of Manitoba cyclotron, R. Pogson and S. Oh. **145** (1977) 403
Energy loss and straggling of low energy alphas in helium, J. M. Cameron, R. H. McCamis, G. A. Miller, G. A. Moss, G. Roy and A. W. Stetz **145** (1977) 405
Comment on the use of thermoluminescence dosimeters as thermal neutron detectors, Y. S. Horowitz and A. Dubi . **146** (1977) 455
A neutron shutter for a cyclotron facility, T. Yamada and M. Tazawa **146** (1977) 457

A new method of determining the total flux of environmental gamma radiation by a 2″⌀ × 2″ NaI(Tl) scintillation counter, S. Minato **146** (1977) 45
A simple and accurate method for bidimensional position read-out of parallel plate avalanche counters, A. Breskin and N. Zwang **146** (1977) 46
Comparison of yield versus depth for particle induced and photon induced X-ray emission analysis, M. S. Ahlberg . **146** (1977) 46
Simple, precise, single channel pulse height analyzer with high dynamic range, R. Bayer **146** (1977) 46
Quantitative (p,x) analysis of iron and minor elements in biological material, A. E. Simpson and N. A. Dyson . . . **146** (1977) 47
The preparation of self-supporting oxygen-free lead targets, A. H. Bennink **146** (1977) 59
Splitting of the ZGS polarized proton beam to two beams utilizing a common front stage, E. Colton and D. Read Moffett **146** (1977) 59
A cementing technique for joining acrylic pieces of small surface area, J. Bednar, D. Holler and W. Selove **146** (1977) 59
Improvement of the plateau characteristics of self-quenching GM counters by γ-irradiation, Y. Sato. **146** (1977) 59
Numerical integration of electromagnetic cascade equations, discussion of results for air, copper, iron, and lead, D. Adler, B. Fuchs and K. O. Thielheim **146** (1977) 60
Loss-free counting — A concept for real-time compensation of dead-time and pile-up losses in nuclear pulse spectroscopy, G. P. Westphal **146** (1977) 60
Mass-spectrometric determination of fission gas permeabilities of HTR fuel particle coatings, A. Strigl **146** (1977) 60
Elemental analysis of water using proton-induced X-ray emission, Y.-C. L. Lien, R. R. Zombola and R. C. Bearse . **146** (1977) 60
Reconstruction of missing data in principal component analysis, P. E. Condon **146** (1977) 61
Precise energies of gamma rays from the ^{230}Th and ^{228}Th decay, W. Kurcewicz, E. Ruchowska, N. Kaffnell and N. Trautmann. **146** (1977) 61
An electrolytic enrichment cell and a reduction system for the measurement of low level tritium concentration in water, C. Yamaguchi **146** (1977) 61
A small medium-pressure gas target system for use with polarized and unpolarized ion beams, J. B. A. England and R. Vlastou **147** (1977) 443
Iron-free coil arrangement for a β-ray spectrometer with an azimuth-dependent field, W. Schott **147** (1977) 447
Low exposure rate dependence of $CaSO_4$: Dy TLDs, P. P. Szabó **147** (1977) 451
In response to "Low exposure rate dependence of $CaSO_4$: Dy TLDs", P. C. Hsu and P. S. Weng **147** (1977) 453
Utilization of teflon-covered Ge(Li) diodes for fast neutron detection, A. Wolf and R. Moreh **148** (1978) 195
Considerations about reactions occurring in pile irradiation of LiF crystals, C. A. Pimentel and L. Q. Amaral . . . **148** (1978) 199
A simple mounting for a liquid target, W. Kreische, H. U. Maar, H. Niedrig, K. Reuter and K. Roth **150** (1978) 325
Use of magnetic suppression on inclined field acceleration tubes, P. Thieberger **150** (1978) 327
Beam quality restoration through gas prestripping of molecular ions in tadem accelerators, P. Thieberger **150** (1978) 329
A new Cr^{v} doping agent for polarized targets, D. Hill, R. C. Miller, M. Krumpolc and J. Roček **150** (1978) 331
Production and calibration of a tensor polarized ^{6}Li-beam, D. Kassen, P. Egelhof, E. Steffens, W. Weiss, P. Zupranski, D. Fink and W. Dreves **150** (1978) 333
Hochfrequenz-Struktur für Linearbeschleuniger, R. Reimann **150** (1978) 337
Secondary electron amplification in high energy proton accelerators, D. Edwards, Jr. **150** (1978) 339
The measured energy response of a 50 m^3 Ge(Li) detector to photons from 4 to 10 MeV, D. F. Coope, R. Laszewski and L. E. Cannell **150** (1978) 341
A system for production and transport of ^{11}C isotopes, I. Loose-Wagenbach and G. Clausnitzer **150** (1978) 345
New method for efficiency calibration of Ge(Li) detectors, V. Hnatowicz and M. Fišer **150** (1978) 349
A spectral chart of the radiation from a circular electron accelerator, Y. Yoneda and N. Hiramatsu **150** (1978) 353
Small angle neutron scattering with azimuthal symmetry, D. F. R. Mildner **150** (1978) 357
Relative intensities of gamma rays from ^{166m}Ho, T. E. Sampson **150** (1978) 361
Man-made geothermal energy source, C. J. Chen **150** (1978) 365
A simple ion source for target preparation via ion beam sputtering, J. A. Nolen, Jr., M. S. Curtin and T. E. Dyson **150** (1978) 581
Observation of ionization electrons drifting large distances in liquid argon, H. H. Chen and J. F. Lathrop **150** (1978) 585
Limitations for the generation of GeV ions from laser irradiated targets, H. Hora, E. L. Kane and J. L. Hughes . . **150** (1978) 589
Szintillationsabklingen und Neutron-Gamma-Diskriminierungseigenschaften des schnellen Flüssigkeitsszintillators NE238, R. Langkau **150** (1978) 593
Comparison of some gamma detectors and environmental measurement of small ^{41}Ar releases from a Triga reactor, B. Bärs and A. M. T. Kautto **150** (1978) 595
A simple position-sensitive parellel-plate avalanche detector with 2-dimensional readout, R. C. Jared, P. Glässel, J. B. Hunter and L. G. Moretto **150** (1978) 597
Relative intensities of gamma-rays from ^{56}Co standard source, M. Hautala, A. Anttila and J. Keinonen **150** (1978) 599
A dual integrated gate generator, G. Goggi, R. Nardò and B. Rossini **150** (1978) 603
Simple digital based triangle wave generator for Mössbauer spectroscopy, M. F. Taragin **150** (1978) 607
Calculation of the Coulomb capture of mesonic particles in inhomogeneous matter, H. Daniel **150** (1978) 609

Errata

Compteur plastique à localisation spatiale et à temps de vol destiné à la détection des neutrons de 2 à 200 MeV, Nucl. Instr. and Meth. **134** (1976) 513 . . . . . **141** (1977) 185
Measurements of Lorentzian line-widths, Nucl. Instr. & Meth. 130 (1975) 559–563, B. L. ROBERTS, R. A. J. RIDDLE and G. T. A. SQUIER **144** (1977) 369
Proc. 1st Symp. on Clean fusion, Nucl. Instr. and Meth. **144** (No. 1) (1977 . . . . . **150** (1978) 367
A. BODEK, The mean of several quotients of two measured variables, Nucl. Instr. and Meth. **117** (1974) 613–616. . **150** (1978) 367

Book Reviews

Nuclei far from stability, K. FRANSSON **141** (1977) 186
Techniques of sample preparation for liquid scintillation counting, INGRID U. OLSSON **142** (1977) 613
Management of radioactive wastes from the nuclear fuel cycle, Å. HULTGREN **142** (1977) 613
Books recently published by the International Atomic Energy Agency **144** (1977) 615
Proceedings of the International Conference on the Interactions of neutrons with nuclei **144** (1977) 616
Plasma physics and controlled nuclear fusion research, Vols. 1–3 . . . . . **147** (1977) 454
Laboratory training manual on the use of isotopes and radiation in entomology, B. KULLENBERG, G. BERGSTRÖM . **150** (1978) 368

News Items

Int. Symp. on Monitoring of Radioactive Airborne and Liquid Discharges from Nuclear Facilities. **142** (1977) 614
24th National Vacuum Symposium **144** (1977) 370
Nuclear Physics Conference **144** (1977) 372

NIELS BOHR Collected Works

Volume 4

The Periodic System (1920-1923)

edited by J. RUD NIELSEN

1977 x + 766 pages
Price: US $131.25/Dfl. 295.00
Subscription Price:
US $111.00/Dfl. 250.00
ISBN 0-7204-1804-6

"Volume 4 of the collected works of Niels Bohr (a fundamental contribution to the History of Science in the XXth century...) contains the papers, lectures and correspondence of the 1920-1923 period and the Encyclopaedia Brittanica article of 1926, all concerned with the problem of atomic structure and the periodic table. It is a fascinating set of documents which describe the various attempts to achieve a consistent picture of the electronic constitution of the elements... The collected works of Niels Bohr are a superb document, a tribute to an intellectual giant." **Physics Bulletin**

Volume 3:

The Correspondence Principle (1918-1923)

edited by J. RUD NIELSEN

1976 xii + 702 pages
Price: US $122.25/Dfl. 275.00
Subscription Price:
US $104.50/Dfl. 235.00
ISBN 0-7204-1803-8

"Three things stand out in this book: (i) the high degree of sophistication attained by applications of the 'old' quantum theory, particularly in the phase concerned here; (ii) the magnitude of the applications for which Bohr himself was responsible, and the effort he expended upon them, almost to the point of exhaustion; (iii) the extent to which the gentle and sensitive young man who looks at us from the frontspiece was the oracle for all the leading physicists of his time. His Collected Works will stand as one of the very greatest documents in the history of science and of human thought."

Physics Bulletin

CONTENTS: Part I. The Correspondence Principle. Part II. Selected Correspondence (1917-1923).

Volume 2:

Work on Atomic Physics (1912-1917)

edited by ULRICH HOYER

1978 xii + 636 pages
Price: US $122.25/Dfl. 275.00
Subscription Price:
US $104.50/Dfl. 235.00
ISBN 0-7204-1802-X

This volume deals with the years 1912-1917 when Bohr was at his most creative, conceiving revolutionary new ideas on absorption phenomena and on atomic and molecular physics. The published papers, extensive manuscript material and the correspondence from this period give some idea of the intensity of Bohr's concentration and the rigor of logic which led him to his conclusions. They also document the amazing amount of painstaking work he conducted single-handedly to consolidate the foundations of his theory and determine its consequences.

CONTENTS: Part I. Absorption of Charged Particles. II. Constitution of Atoms and Molecules. III. Consolidation of the Quantum Theory of the Atom. IV. Selected Correspondence (1912-1917).

Volume 1:

Early Work (1905-1911)

edited by J. RUD NIELSEN

1972 xlviii + 608 pages
Price: US $100.00/Dfl. 225.00
Subscription Price:
US $84.50/Dfl. 190.00
ISBN 0-7204-1801-1

"... these volumes will surely be well used. The aim is to add to a complete reissue of the published papers a critical (but full) selection of additional documents. The volumes are grouped in subjects, although this is in fact much the same as a chronological arrangement... The book is an essential reference for all students of the history of quantum mechanics."

The Times Higher Education Supplement

Subscription information

A detailed brochure on NIELS BOHR COLLECTED WORKS is available from the publisher. Subscribers to the complete set (in 8 volumes) are entitled to a discount of 15% on the list price per volume.

NORTH-HOLLAND PUBLISHING COMPANY

P.O. Box 211, 1000 AE Amsterdam, The Netherlands
in the U.S.A. and Canada:
ELSEVIER/NORTH-HOLLAND INC. 52 Vanderbilt Ave., New York, 10017

1165NH

Nuclear Molecular Phenomena

Proceedings of the International Conference on Resonances in Heavy Ion Reactions (Hvar, Adriatic Coast, Yugoslavia, May 30 - June 3, 1977)

edited by **NIKOLA CINDRO,** *Laboratory for Nuclear Spectroscopy, "Rudjer Bošković" Institute, Zagreb, Yugoslavia.*

1978 xviii + 432 pages Price: US $52.25/Dfl. 120.00 ISBN 0-444-85116-X

The title of this proceedings volume- "Nuclear Molecular Phenomena"- was chosen specifically to reflect the emphasis of the majority of the papers presented at the conference. Some 70 physicists from 17 countries attended the meeting.

The subject of resonances in heavy ion reactions has only quite recently emerged as a vital field in heavy ion physics. In 1974-75, when it was first suggested that a conference be held on such resonances, there was lively interest in the subject. It can now be seen that these years in fact marked the beginning of a great boom in the publication of experimental papers on resonances, following the relative "lethargy" of the late sixties.

The papers presented in this volume describe both experimental and theoretical developments in the study of resonances in heavy ion reactions, and reflect the feeling of optimism among physicists, who believe that these developments may open the door to a new form of spectroscopy. This new form of spectroscopy would be able to provide an analysis of cluster configurations in the structure of atomic nuclei.

Both theoretical and experimental physicists wishing to have access to an up-to-date overview of developments in this area of their discipline will find these proceedings of particular value.

CONTENTS: Foreword. **INVITED PAPERS:** The Carbon-Carbon Nuclear System *(D. A. Bromley).* Experimental Survey of the Resonant-Like Structures Observed in the $^{16}O + ^{12}C$ System *(J. Gastebois).* Surface Transparency and Resonance Phenomena and the Heavy Ion Optical Model *(R. H. Siemssen).* Molecules in Heavy Ion Collisions *(R. Könnecke, W. Greiner and W. Scheid).* The Theory of Fragmentation in Fission, Fusion and Heavy Ion Scattering *(H. L. Lustig, K. H. Ziegenhain, J. Hahn, W. Greiner and W. Schneid).* The Two-Body Molecular Model for Resonances in Heavy Ion Reactions *(Y. Abe).* Treatment of Resonances in the Coupled Channel Approximation *(T. Matsuse).* Experiments on Non-resonating Light Systems *(D. Fick).* Interference Effects in Heavy Ion Elastic Scattering *(H. Doubre and C. Marty).* Total Reaction Cross Sections for Heavy Ions *(R. H. Davis).* Resonant and Non-Resonant Behaviour of Complete Fusion Cross-Sections in Light Heavy Ion Collisions *(S. Harar).*

north-holland P.O. BOX 211 / AMSTERDAM THE NETHERLANDS / IN THE U.S.A. AND CANADA: 52 VANDERBILT AVENUE / NEW YORK, N.Y. 10017

The Dutch guilder price is definitive. US $ prices are subject to exchange rate fluctuations. 1127NH